olivetti

d-Color MF22

d-Color

USER MANUAL

GB

PUBLICATION ISSUED BY:
Olivetti Tecnost, S.p.A.
Divisione Business Prodotti Office

Via Jervis, 77 - 10015 Ivrea (ITALY)
www.olivettitecnost.com

Copyright © 2004, Olivetti
All rights reserved

September 2004

The manufacturer reserves the right to carry out modifications to the product described in this manual at any time and without any notice.

ENERGY STAR is a U.S. registered mark.

The ENERGY STAR program is an energy reduction plan introduced by theUnited States Environmental Protection Agency in response to environmental issues and for the purpose of advancing the development and utilization of more energy efficient office equipment.

The CE mark affixed to the product certifies that the product satisfies the basic quality requirements.

Your attention is drawn to the following actions which could compromise the conformity attested to above, as well as the characteristics of the product:

- incorrect electrical power supply;
- incorrect installation, incorrect or improper use or use not in compliance with the warnings provided in the User's Manual supplied with the product;
- replacement of original components or accessories with others of a type not approved by the manufacturer, or performed by unauthorised personnel.

Contents

1 Introduction

1.1 Explanation of Basic Concepts and Symbols 1-2
"Width" and "Length" 1-2
Paper Orientation 1-2

1.2 Explanation of Manual Conventions 1-3

1.3 Energy Star® 1-5
What is an ENERGY STAR® Product? 1-5

1.4 Legal Restrictions on Copying 1-6

2 Installation and Operation Precautions

2.1 For Safe Use 2-1
Warning and Precaution Symbols 2-1
Meaning of Symbols 2-1
WARNING 2-2
CAUTION 2-3
Precautions for Routine Use 2-4
CE Marking (Declaration of Conformity) for Users of the European Union (EU) 2-4
For Users in countries not subject to Class B regulations 2-5
LED Radiation Safety 2-5
Ozone Release 2-5
Acoustic noise (For European Users Only) 2-5

2.2 Installation Precautions 2-6
Installation Site 2-6
Power Source 2-6
Space Requirements 2-7

2.3 Operation Precautions 2-8
Operating Environment 2-8
Proper Use 2-8
Transporting the Machine 2-9
Care of Machine Supplies 2-9
Storage of Copies 2-10

3 Before Making Copies

3.1 Components and Their Functions 3-1

3.2 Part Names and Their Functions 3-4

Outside of Machine 3-4
Options 3-7
Inside of Machine 3-11
Control Panel 3-12
Touch Panel 3-14
Operating the Touch Panel 3-15
Supplies and Parts 3-16

3.3 Turning the Machine On and Off 3-17

Turning On the Machine 3-17
When the Machine Is Turned On 3-17
Power Save Mode 3-18
Recovering From Power Save Mode 3-18
Sleep Mode 3-19
Recovering From Sleep Mode 3-19
Turning Off the Machine 3-20
When the Machine Is Turned Off 3-20

3.4 Using the Touch Panel 3-21

Description of the Touch Panel 3-21
Default Settings 3-21

3.5 Loading Paper Into the 1st Drawer 3-23

3.6 Loading Paper Into the 2nd, 3rd or 4th Drawer 3-28

3.7 Loading Paper Into the Large-Capacity Paper Feed Cabinet 3-30

3.8 Loading Paper Into the Bypass Tray 3-32

3.9 Feeding the Document 3-37

Loading the Document Into the Reverse Automatic Document Feeder 3-37
Placing the Document On the Original Glass 3-40

4 Basic Copy Operations

4.1 Specifying the Number of Copies 4-1

To specify the number of copies 4-1
To change the setting for the number of copies 4-2

4.2 Stopping Copying 4-3

4.3 Selecting a Color Setting 4-4

To select the Color setting 4-4

4.4 Selecting Output Settings 4-6
To specify Output settings 4-6
4.5 Specifying a Zoom Setting 4-8
To select a Zoom setting 4-8
To enter a Manual Zoom ratio 4-8
4.6 Selecting a Paper/Size Setting 4-9
To select the paper drawer 4-9
To specify the size of the paper in the 1st drawer 4-10
To specify the size of the paper in the bypass tray 4-12
To set a non-standard (custom) paper size 4-14
To specify the Bypass Reserve settings for the bypass tray 4-16
4.7 Selecting Original Settings 4-18
To specify Original settings 4-18
To specify Book Copy settings 4-19
4.8 Selecting Copy Settings 4-23
To specify Copy settings 4-24
To select the Bind setting 4-25
4.9 Specifying Conditions of the Original 4-27
To specify conditions of the original 4-28
4.10 Selecting Photo/Density Settings 4-31
To select a Photo/Density setting 4-31
To select a glossy finish (“Glossy” setting) 4-34
To select a Screen Pattern setting 4-34

5 Copy Paper

5.1 Paper Specifications 5-1
Paper Types 5-1
Paper Sizes 5-3
Paper Capacity 5-4
5.2 Paper Storage 5-6

6 Original Documents

6.1 Document Feeding 6-1
Document Feeding Methods 6-1
Appropriate Document Types (Using the Reverse Automatic Document Feeder) 6-2
Document Precautions (Using the Reverse Automatic Document Feeder) 6-4
Appropriate Document Types (Using the Original Glass) 6-5

Document Precautions (Using the Original Glass) 6-5
Small-Sized Documents 6-6
Centering 6-6

6.2 Print Area 6-6

7 Care of the Machine

7.1 Cleaning 7-1
Housing 7-1
Original Glass 7-1
Control Panel 7-2
Document Transfer Belt 7-2
Paper Take-Up Roller 7-3
Electrostatic Charger 7-3

8 Touch Panel Messages

8.1 When the Message “Toner Cartridge (X) needs to be replaced soon.” Appears 8-1

8.2 When the Message “Replace the Toner cartridge” Appears.... 8-1
Replacing the Toner Cartridge 8-2

8.3 When the Message “Replace Staple Cartridge.” Appears..... 8-6
Replacing the Staple Cartridge for FS-501 8-6
Replacing the Staple Cartridge for FS-601 8-9

8.4 When the Message “Misfeed detected.” Appears 8-13
Locations of Paper Misfeeds 8-13
Paper Misfeed/Staple Jam Indications 8-14
Clearing a Paper Misfeed in the Bypass Tray 8-15
Clearing a Paper Misfeed in the Automatic Duplex Unit 8-17
Clearing a Paper Misfeed in the 1st or 2nd Drawer 8-18
Clearing a Paper Misfeed in a Paper Drawer (3rd or 4th Drawer) 8-19
Clearing a Paper Misfeed in the Large-Capacity Paper Feed Cabinet 8-20
Clearing a Paper Misfeed in the Right-Side Door 8-21
Clearing a Paper Misfeed in the Fusing Unit 8-24
Clearing a Paper Misfeed in the Reverse Automatic Document Feeder 8-27
Clearing a Paper Misfeed in Finisher FS-501 8-30
Clearing a Paper Misfeed in Finisher FS-601 8-34

8.5 When the Message “Staple mode cannot be used.” Appears 8-38
Clearing Jammed Staples in Finisher FS-501 8-38
Clearing Jammed Staples in Finisher FS-601 8-40

8.6 When the Message “Remove Punch Scraps.” Appears.....8-45
Emptying the Hole-Punch Waste Container.....8-45
8.7 When the Inspection Mark “” Appears.....8-47
8.8 When the Message “Malfunction detected.” Appears.....8-48
8.9 When “The following units need to be replaced soon.” Appears.....8-48
8.10 When the Message “Please replace XXXX.” Appears.....8-49
8.11 Main Messages and Their Remedies.....8-50

9 Troubleshooting

9.1 When the Print Quality Is Low.....9-1
9.2 When the Machine Is Not Operating Correctly.....9-4

10 Specifications

10.1 Specifications.....10-1
Copier MF22.....10-1
Automatic Duplex Unit AD-501.....10-2
Reverse Automatic Document Feeder DF-601.....10-3
Paper Feed Cabinet PC-101.....10-4
Paper Feed Cabinet PC-201.....10-4
Paper Feed Cabinet PC-401.....10-4
Finisher FS-601.....10-5
Finisher FS-501.....10-6
Job Separator JS-601.....10-6

11 Appendix

11.1 Paper Size and Zoom Ratio Tables.....11-1
Copy Paper Sizes.....11-1
Zoom Ratios.....11-2
11.2 Index.....11-5

1 Introduction

Thank you for choosing this machine.

This manual contains details on the operation of the various functions of the machine, precautions on its use, and basic troubleshooting procedures. In order to ensure that this machine is used correctly and efficiently, carefully read this manual before using the machine. After reading the manual, store it in the designated holder so that it can easily be referred to when questions or problems arise during operation.

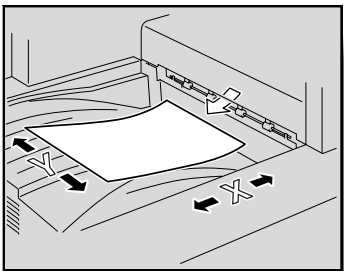
The illustrations used in this manual may appear slightly different from views of the actual equipment.

1.1 Explanation of Basic Concepts and Symbols

The use of words and symbols in this manual are explained below.

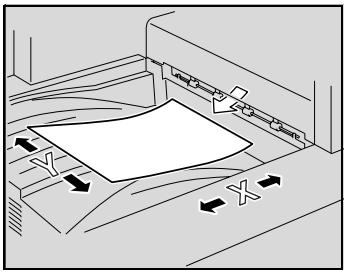
“Width” and “Length”

Whenever paper dimensions are mentioned in this manual, the first value always refers to the width of the paper (shown as “Y” in the illustration) and the second to the length (shown as “X”).

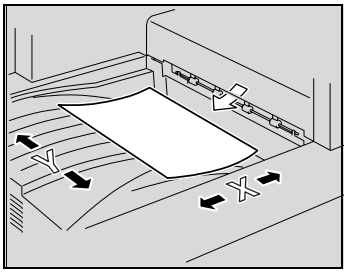


Paper Orientation

Lengthwise ( )
If the width (Y) of the paper is shorter than the length (X), the paper has a vertical or portrait orientation, indicated by either “L” or .



Crosswise ( )
If the width (Y) of the paper is longer than the length (X), the paper has a horizontal or landscape orientation, indicated by either “C” or .



1.2 Explanation of Manual Conventions

WARNING

Fatal or critical injuries

➔ Failure to observe instructions highlighted in this manner may result in fatal or critical injuries.

➔ Observe all warnings in order to ensure safe use of the machine.

CAUTION

Serious injuries or property damage

➔ Failure to observe instructions highlighted in this manner may result in serious injuries or property damage.

➔ Observe all cautions in order to ensure safe use of the machine.

Reminder!

Text highlighted in this manner indicates operation precautions. Carefully read and observe this type of information.

Additional Information

Text highlighted in this manner provides more detailed information concerning the operating procedure.

Hint

This includes reference and supplemental information concerning operating procedures and other text. We recommend that this information be read carefully.

Reference

Text highlighted in this manner indicates sections containing additional information. If necessary, refer to the indicated sections.

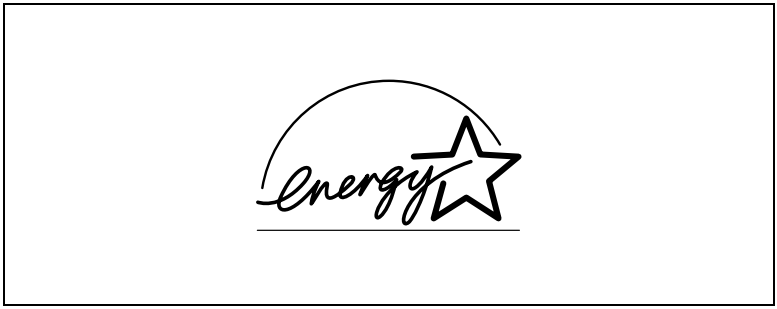
Condition

Text highlighted in this manner provides information concerning the combining of functions.

[ ] key

The names of keys on the control panel are written as shown above.

1.3 Energy Star®



As an ENERGY STAR® Partner, we have determined that this machine meets the ENERGY STAR® Guidelines for energy efficiency.

What is an ENERGY STAR® Product?

An ENERGY STAR® product has a special feature that allows it to automatically switch to a “low-power mode” after a period of inactivity. An ENERGY STAR® product uses energy more efficiently, saves you money on utility bills and helps protect the environment.

1.4 Legal Restrictions on Copying

Certain types of documents must never be copied with the purpose or intent to pass copies of such documents off as the originals.

The following is not a complete list, but is meant to be used as a guide to responsible copying.

Financial Instruments

- Personal checks
- Travelers checks
- Money orders
- Certificates of deposit
- Bonds or other certificates of indebtedness
- Stock certificates

Legal Documents

- Food stamps
- Postage stamps (canceled or uncanceled)
- Checks or drafts drawn by government agencies
- Internal revenue stamps (canceled or uncanceled)
- Passports
- Immigration papers
- Motor vehicle licenses and titles
- House and property titles and deeds

General

- Identification cards, badges, or insignias
- Copyrighted works without permission of the copyright owner

In addition, it is prohibited under any circumstances to copy domestic or foreign currencies, or works of art without permission of the copyright owner.

When in doubt about the nature of a document, consult with legal counsel.

2 Installation and Operation Precautions

2.1 For Safe Use

This section contains detailed instructions on the operation and maintenance of this machine. To achieve optimum utility of this device, all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Please read the next section before using this device. It contains important information related to user safety and preventing equipment problems.

Make sure you observe all of the precautions listed in this manual.

* Ver07
Please note that some parts of the contents of this section may not correspond with the purchased product.

Warning and Precaution Symbols

⚠ **WARNING:**	Ignoring this warning could cause serious injury or even death.
⚠ **CAUTION:**	Ignoring this caution could cause injury or damage to property.

Meaning of Symbols

A triangle indicates a danger against which you should take precaution.

This symbol warns against cause burns.

A diagonal line indicates a prohibited course of action.

This symbol warns against dismantling the device.

A black circle indicates an imperative course of action.

This symbol indicates you must unplug the device.

WARNING

	• Do not modify this product, as a fire, electrical shock, or breakdown could result. If the product employs a laser, the laser beam source could cause blindness. • Do not attempt to remove the covers and panels which have been fixed to the product. Some products have a high-voltage part or a laser beam source inside that could cause an electrical shock or blindness.
	• Use only the power cord supplied in the package. If a power cord is not supplied, only use the power cord and plug that is specified in POWER CORD INSTRUCTION. Failure to use this cord could result in a fire or electrical shock. • Use the power cord supplied in the package only for this machine and NEVER use it for any other product. Failure to observe this precaution could result in a fire or electrical shock. • Use only the specified power source voltage. Failure to do that could result in a fire or electrical shock. • Do not use a multiple outlet adapter to connect any other appliances or machines. Use of a power outlet for more than the marked current value could result in a fire or electrical shock.
	Do not unplug and plug in the power cord with a wet hand, as an electrical shock could result.
	Plug the power cord all the way into the power outlet. Failure to do this could result in a fire or electrical shock.
	• Do not scratch, abrade, place a heavy object on, heat, twist, bend, pull on, or damage the power cord. Use of a damaged power cord (exposed core wire, broken wire, etc.) could result in a fire or breakdown. Should any of these conditions be found, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. • Do not use an extension cord, in principle. Use of an extension cord could cause a fire or electrical shock. Contact your authorized service representative if an extension cord is required.
	Do not place a flower vase or other container that contains water, or metal clips or other small metallic objects on this product. Spilled water or metallic objects dropped inside the product could result in a fire, electrical shock, or breakdown. Should a piece of metal, water, or any other similar foreign matter get inside the product, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative.
	• Do not keep using this product, if this product becomes inordinately hot or emits smoke, or unusual odor or noise. Immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result. • Do not keep using this product, if this product has been dropped or its cover damaged. Immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.
	Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.

Connect the power cord to an electrical outlet that is equipped with a grounding terminal.

CAUTION

- Do not use flammable sprays, liquids, or gases near this product, as a fire could result.
- Do not leave a toner unit or drum unit in a place within easy reach of children.
  Licking or ingesting any of these things could injure your health.
- Do not let any object plug the ventilation holes of this product. Heat could accumulate inside the product, resulting in a fire or malfunction.
- Do not install this product at a site that is exposed to direct sunlight, or near an air conditioner or heating apparatus. The resultant temperature changes inside the product could cause a malfunction, fire, or electrical shock.
- Do not place the product in a dusty place, or a site exposed to soot or steam, near a kitchen table, bath, or a humidifier. A fire, electrical shock, or breakdown could result.
- Do not place this product on an unstable or tilted bench, or in a location subject to a lot of vibration and shock. It could drop or fall, causing personal injury or mechanical breakdown.
- After installing this product, mount it on a secure base. If the unit moves or falls, it may cause personal injury.
- Do not store toner units and PC drum units near a floppy disk or watch that are susceptible to magnetism. They could cause these products to malfunction.

The inside of this product has areas subject to high temperature, which may cause burns. When checking the inside of the unit for malfunctions such as a paper misfeed, do not touch the locations (around the fusing unit, etc.) which are indicated by a “CAUTION HOT” caution label.

Do not place any objects around the power plug as the power plug may be difficult to pull out when an emergency occurs.

The socket-outlet shall be installed near the machine and shall be easily accessible as the power plug may be difficult to pull out when an emergency occurs.

- Always use this product in a well ventilated location. Operating the product in a poorly ventilated room for an extended period of time could injure your health. Ventilate the room at regular intervals.
- Whenever moving this product, be sure to disconnect the power cord and other cables. Failure to do this could damage the cord or cable, resulting in a fire, electrical shock, or breakdown.
- When moving this product, always hold it by the locations specified in the User’s Guide or other documents. If the unit falls it may cause severe personal injury. The product may also be damaged or malfunction.
- Remove the power plug from the outlet more than one time a year and clean the area between the plug terminals. Dust that accumulates between the plug terminals may cause a fire.
- When unplugging the power cord, be sure to hold onto the plug. Pulling on the power cord could damage the cord, resulting in a fire or electrical shock.

Precautions for Routine Use

- Do not store toner units, PC drum units, and other supplies and consumables in a place subject to direct sunlight and high temperature and humidity, as poor image quality and malfunction could result.
- Do not attempt to replace the toner unit and PC drum unit in a place exposed to direct sunlight. If the PC drum is exposed to intense light, poor image quality could result.
- Do not unpack a toner unit or PC drum unit until the very time of use. Do not leave an unpacked unit standing. Install it immediately or poor image quality could result.
- Do not keep toner units and PC drum units in an upright position or upside down, as poor image quality could result.
- Do not throw or drop a toner unit or PC drum unit as poor image quality could result.
- Do not use this product in an area where ammonia or other gases or chemicals are present. Failure to do so may shorten the service life of the product, cause damage or decrease performance.
- Do not use this product in an environment with a temperature outside the range specified in the User's Guide, as a breakdown or malfunction could result.
- Do not attempt to feed stapled paper, carbon paper or aluminum foil through this product, as a malfunction or fire could result.

Do not touch or scratch the surface of the toner unit developing roller and the PC drum, as poor image quality could result.

Use the supplies and consumables recommended by the dealer. Use of any supply or consumable not recommended could result in poor image quality and breakdown.

CE Marking (Declaration of Conformity) for Users of the European Union (EU)

This product complies with the following EU directives: 89/336/EEC, 73/23/EEC and 93/68/EEC directives.

This declaration is valid for the area of the European Union.

This device must be used with a shielded network (10 Base-T/100 Base-TX) cable and a shielded parallel cable. The use of non-shielded cables is likely to result in interference with radio communications and is prohibited under EU directives.

For Users in countries not subject to Class B regulations

WARNING
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This device must be used with a shielded network (10 Base-T/100 Base-TX) cable and a shielded parallel cable. The use of non-shielded cables is likely to result in interference with radio communications and is prohibited under EU directives.

LED Radiation Safety

This product is a copier which operates by means of a LED (light emitting diodes) exposure system. There is no possibility of danger from the LED optical radiation, because the LED optical radiation level does not exceed the accessible radiation limit of class 1 under all conditions of operation, maintenance, service and failure.

Ozone Release

Locate the machine in a Well Ventilated Room
A negligible amount of ozone is generated during normal operation of this machine. An unpleasant odor may, however, be created in poorly ventilated rooms during extensive machine operations. For a comfortable, healthy and safe operating environment, it is recommended that the room be well ventilated.

Placer l'appareil dans une pièce largement ventilée
Une quantité d'ozone négligable est dégagée pendant le fonctionnement de l'appareil quand celui-ci est utilisé normalement. Cependant, une odeur désagréable peut être ressentie dans les pièces dont l'aération est insuffisante et lorsque une utilisation prolongée de l'appareil est effectuée. Pour avoir la certitude de travailler dans un environnment réunissant des conditions de confort, santé et de sécurité, il est préférable de bien aérer la pièce ou se trouve l'appareil.

Acoustic noise (For European Users Only)

Machine Noise Regulation 3 GSGV, 18.01.1991 : The sound pressure level at the operator position according to EN 27779 is equal to or less than 70 dB (A).

2.2 Installation Precautions

Installation Site

To ensure utmost safety and prevent possible malfunctions, install the machine in a location that meets the following requirements.

- A location away from curtains, etc. that may catch fire and burn easily
- A location that is not exposed to water or other liquids
- A location free from direct sunlight
- A location out of the direct airflow of an air conditioner or heater, and not exposed to extremely high or low temperatures
- A well-ventilated location
- A location that is not exposed to high humidity
- A location that is not extremely dusty
- A location not subjected to undue vibrations
- A stable and level location
- A location where ammonia or other organic gases are not generated
- A location that does not put the operator in the direct airflow of exhaust from the machine
- A location that is not near any kind of heating devices

Power Source

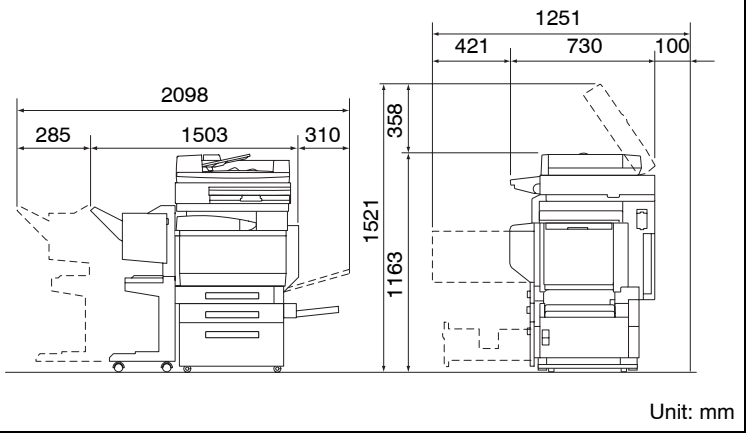
The power source requirements are as follows.

- Voltage fluctuation: Maximum ±10% (at 220-240 V AC)
- Frequency fluctuation: Maximum ±3 Hz (at 50 Hz)

❍ Use a power source with as little voltage or frequency fluctuations as possible.

Space Requirements

To ensure easy machine operation, supply replacement and maintenance, adhere to the recommended space requirements detailed below.



...

Reminder!

Be sure to allow a clearance of 100 mm or more at the back of the machine for the ventilation duct.

2.3 Operation Precautions

Operating Environment

The environmental requirements for correct operation of the machine are as follows.

- Temperature: 10°C (50°F) to 30°C (86°F) with fluctuations of no more than 10°C (50°F) within an hour
- Humidity: 15% to 85% with fluctuations of no more than 20% within an hour

Proper Use

To ensure the optimum performance of the machine, follow the precautions listed below.

- Never place heavy objects on the original glass or subject it to shocks.
- Never open any machine doors or turn off the machine while it is making copies; otherwise, a paper jam will occur.
- Never bring any magnetized object or use flammable sprays or liquids near the machine.
- Always make sure that the power plug is completely plugged into the electrical outlet.
- Always make sure that the machine's power plug is visible and not hidden by the machine.
- Always unplug the machine from the electrical outlet if the unit is not to be used for a long period of time.
- Always provide good ventilation when making a large number of continuous copies.

CAUTION

If the ventilation duct on the back side of the machine is blocked, the inside of the machine will accumulate heat, resulting in a malfunction or fire.

➔ Be sure to allow a clearance of 100 mm or more at the back of the machine for the ventilation duct.

CAUTION

The area around the fusing unit is extremely hot.

➔ Be careful not to touch any parts around the fusing unit, other than those indicated in this manual, in order to reduce the risk of burns. Be especially careful not to touch parts marked with warning labels, and their surrounding areas.

➔ If you get burnt, immediately cool the skin under cold water, and then seek professional medical advice.

Transporting the Machine

If you need to transport the machine over a long distance, consult your technical representative.

Care of Machine Supplies

Use the following precautions when handling the machine supplies (toner cartridge, paper, etc.).

✚ Store the supplies in a location that meets the following requirements.
Free from direct sunlight
Away from any heating apparatus
Not subjected to high humidity
Not extremely dusty

✚ Store in a sealed plastic bag in a cool, dark place paper that has been removed from its wrapper but not loaded into the machine.

- Only use toner that has been manufactured specifically for this machine. Never use other types of toner.

- Keep all supplies out of the reach of children.

CAUTION

Precautions for handling toner:

➔ Be careful not to spill toner inside the machine or get toner on your clothes or hands.

➔ If your hands become soiled with toner, immediately wash them with soap and water.

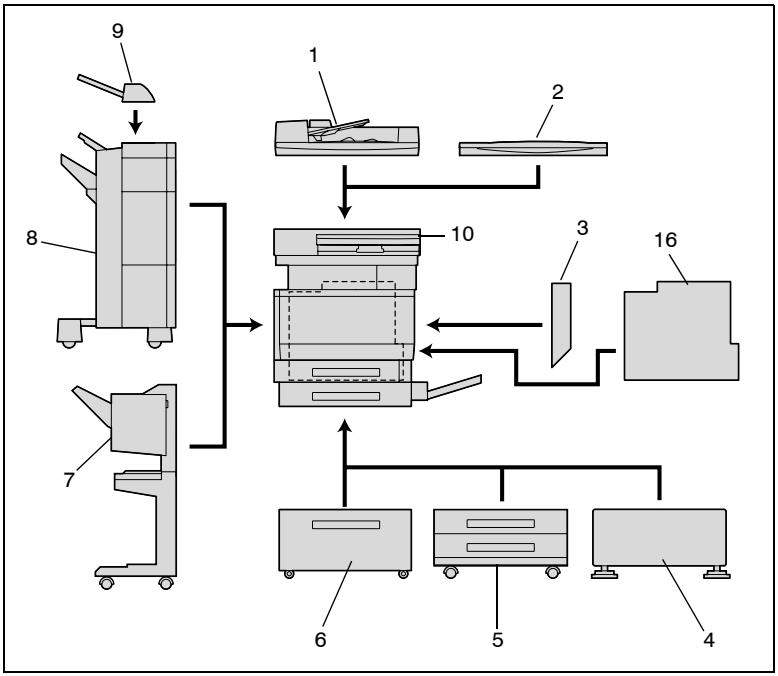
➔ If toner gets in your eyes, immediately flush them with water, and then seek professional medical advice.

Storage of Copies

- Copies that are to be kept for a long time should be kept where they are not exposed to light in order to prevent them from fading.
- Adhesive that contains solvent (e.g., spray glue) may dissolve the toner on copies.
- Color copies have a thicker layer of toner than normal black-and-white copies. Therefore, when a color copy is folded, the toner at the fold may peel off.

3 Before Making Copies

3.1 Components and Their Functions



No.	Part Name	Description
1	Reverse Automatic Document Feeder DF-601 (optional)	Automatically feeds one document sheet at a time for scanning, and automatically turns over double-sided documents for scanning Referred to as the “reverse automatic document feeder” throughout the manual.
2	Original Cover OC-501 (optional)	Presses down on the loaded document to keep it in place Referred to as the “original cover” throughout the manual.

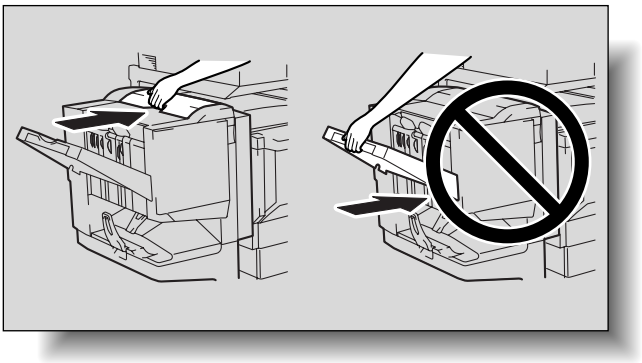
No.	Part Name	Description
3	Automatic Duplex Unit AD-501 (optional)	Turns over printed pages, allowing double-sided pages to be printed automatically • If image controller X3e 22C-KM and the automatic duplex unit are installed, the memory must be expanded. If the optional expanded memory unit is not installed, automatic double-sided copying cannot be performed. Referred to as the “automatic duplex unit” throughout the manual.
4	Desk DK-501 (optional)	Using the desk allows this machine to be set up on the floor. Referred to as the “desk” throughout the manual.
5	Paper Feed Cabinet PC-101 (optional) Paper Feed Cabinet PC-201 (optional)	Paper feed cabinet PC-101 is equipped with a single paper drawer. The top drawer can be loaded with 500 sheets of paper, and the bottom drawer can be used as storage. Referred to as the “single paper feed cabinet” throughout the manual. Paper feed cabinet PC-201 is equipped with two paper drawers. Both the top and the bottom drawers can be loaded with 500 sheets of paper. Referred to as the “double paper feed cabinet” throughout the manual.
6	Paper Feed Cabinet PC-401 (optional)	Equipped with a large-capacity paper drawer that can supply 2,500 sheets of paper Referred to as the “large-capacity paper feed cabinet” throughout the manual.
7	Finisher FS-601 (optional)	Finishes printed pages according to the selected Output setting (sorting, stapling, hole-punching or binding), then feeds out the pages Referred to as the “finisher” throughout the manual. • Hole-punching is only available if the optional punch kit (PK-4) is installed onto finisher FS-601. In order to install the finisher, the main unit must be installed on the desk, on the large-capacity paper feed cabinet, or on the single paper feed cabinet or the double paper feed cabinet.
8	Finisher FS-501 (optional)	Finishes printed pages according to the selected Output setting (sorting or stapling), then feeds out the pages • In order to install the finisher, the main unit must be installed on the desk, on the large-capacity paper feed cabinet, or on the single paper feed cabinet or the double paper feed cabinet.
9	Job Separator JS-601 (optional)	If finisher FS-501 is installed, the number of copy output trays can be increased. Referred to as the “job separator” throughout the manual.
10	Main unit	The document is scanned by the scanner section, and the scanned image is printed by the printer section. Referred to as the “main unit” throughout the manual.
11	Punch Kit PK-4 (optional)*	Allows hole-punching to be used if installed onto finisher FS-601 Referred to as the “punch kit” throughout the manual.

No.	Part Name	Description
12	Expanded Memory Unit EM-301 (optional)*	Increases the memory of the machine to 512 MB (256 MB standard memory + 256 MB expanded memory unit) By expanding the memory, the number of pages that can be stored in the memory can be increased. Referred to as the “expanded memory unit” throughout the manual.
13	Hard Disk HD-501 (optional)*	Allows more pages to be stored. In addition, by installing Hard Disk HD-501 and the expanded memory unit, the “Set Numbering” function can be used. Referred to as the “hard disk” throughout the manual.
14	Printer controller*	Internal printer controller that allows the machine to be used as both a color printer and a color scanner configured into a computer network For more details, refer to the MF22 Printer Controller User’s Guide.
15	Local Interface Kit EK-501 (optional)*	Used for making a parallel connection between this machine and the computer
16	Image Controller X3e 22C-KM (optional)*	External image controller that allows the machine to be used as both a color printer and a color scanner configured into a computer network For details, refer to the manual for the image controller.
17	Video Interface Kit VI-501 (optional)*	Used for connecting the image controller X3e 22C-KM to this machine

* Parts marked with an asterisk (*) are internal options and therefore are not shown in the illustration.

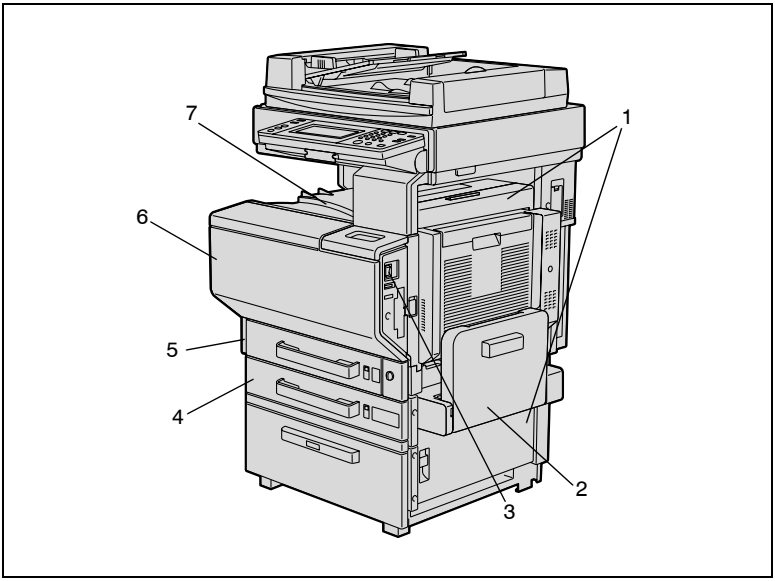
Precautions for using the finisher

- When moving the finisher, do not grab the paper output tray.



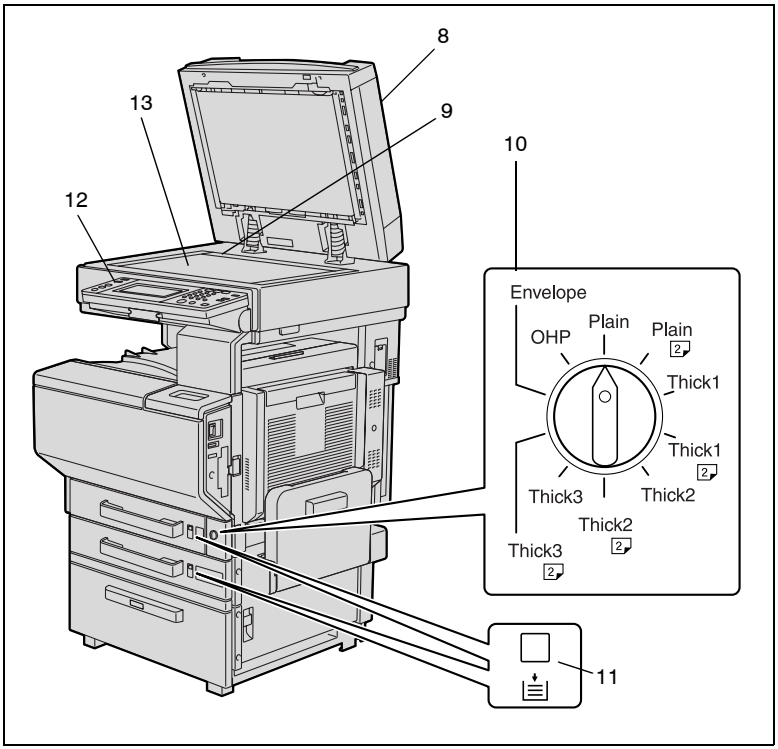
3.2 Part Names and Their Functions

Outside of Machine



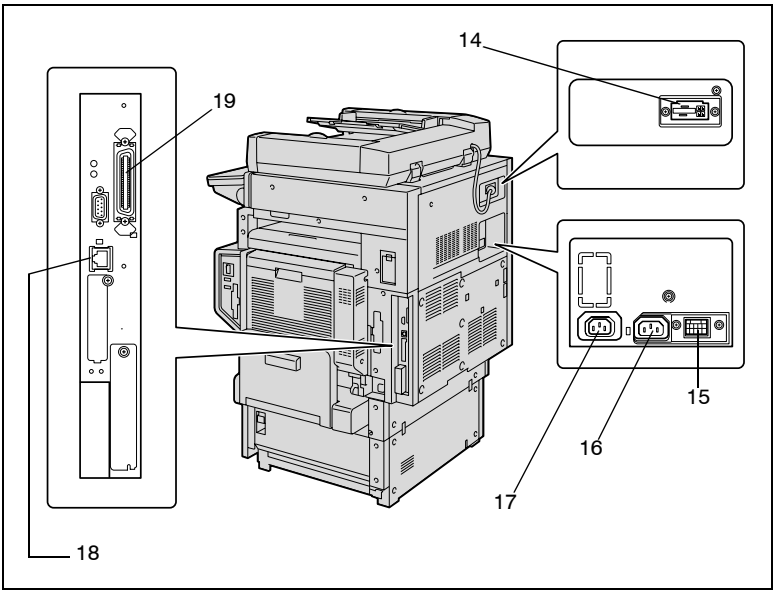
The illustration above shows the reverse automatic document feeder and large-capacity paper feed cabinet installed.

No.	Part Name	Description
1	Right-side door	Opened when clearing misfeeds
2	Multiple bypass tray	Used when printing onto paper with a size not loaded into a paper drawer or onto thick paper, overhead projector transparencies, postcards, envelopes or label sheets Holds up to 150 sheets of plain paper, 20 overhead projector transparencies, postcards, label sheets or sheets of thick paper, or 10 envelopes. Referred to as the “bypass tray” throughout the manual. (See p. 3-32.)
3	Power switch	Used to turn the machine on and off. (See p. 3-17)
4	2nd drawer	Holds up to 500 sheets of paper (See p. 3-28)
5	1st drawer	Holds up to 250 sheets of paper The paper size can be adjusted freely. Media other than plain paper can be loaded.
6	Front door	Opened when replacing a toner cartridge (See p. 8-1)
7	Copy output tray	Collects printed pages



The illustration above shows the reverse automatic document feeder and large-capacity paper feed cabinet installed.

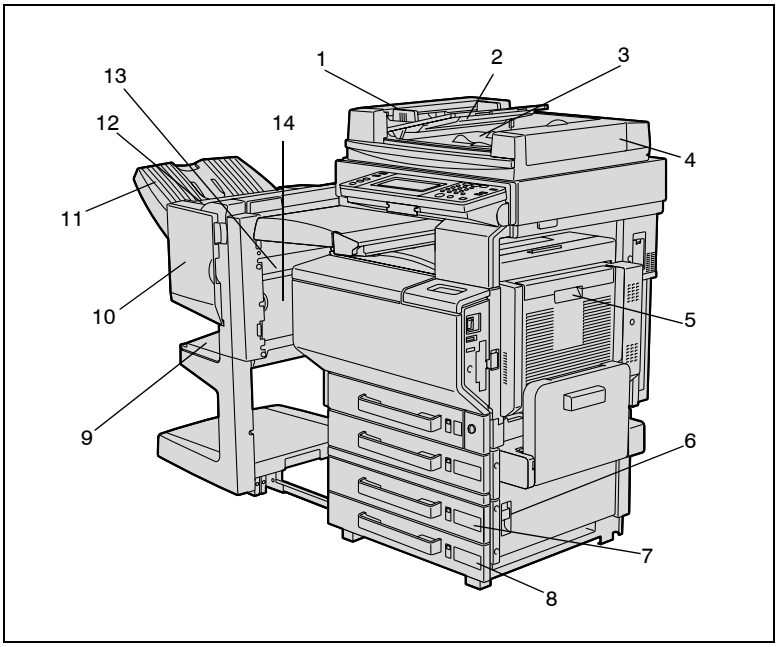
No.	Part Name	Description
8	Reverse automatic document feeder (optional)	When a document is loaded, it is automatically fed in and scanned one page at a time.
9	Document scales	Used to align the document (See p. 3-40)
10	Media type selection dial	Used to specify the type of paper loaded into the 1st drawer
11	1st/2nd drawer paper-empty indicator	Indicates the amount of paper remaining When the indicator is completely red, the paper is empty.
12	Control panel	Used to start copying or to specify various settings (See p. 3-12)
13	Original glass	Place a document on the glass so that it can be scanned. (See p. 3-40)



The illustration above shows the reverse automatic document feeder and large-capacity paper feed cabinet installed.

No.	Part Name	Description
14	Reverse automatic document feeder connector	Used for connecting the reverse automatic document feeder hookup cord
15	Finisher connector	Used for connecting the finisher hookup cord
16	Power cord connector	Used for connecting the power cord
17	Power connector for the external image controller	Used for connecting the external image controller's power cord
18	Network connector	Used for connecting the network cable when this machine is used for network printing and network scanning
19	Parallel interface connector (optional)	Used for connecting a parallel cable from the computer

Options



Reverse Automatic Document Feeder

No.	Part Name	Description
1	Adjustable document guide	Adjust to the width of the document. (See p. 3-37)
2	Document feed tray	Load the documents to be copied face up. (See p. 3-37)
3	Document output tray	Collects documents that have been scanned
4	Misfeed-clearing cover	Opened when clearing a misfed document

Automatic Duplex Unit

No.	Part Name	Description
5	Automatic duplex unit door	Opened when clearing a paper misfeed within the automatic duplex unit

Single Paper Feed Cabinet

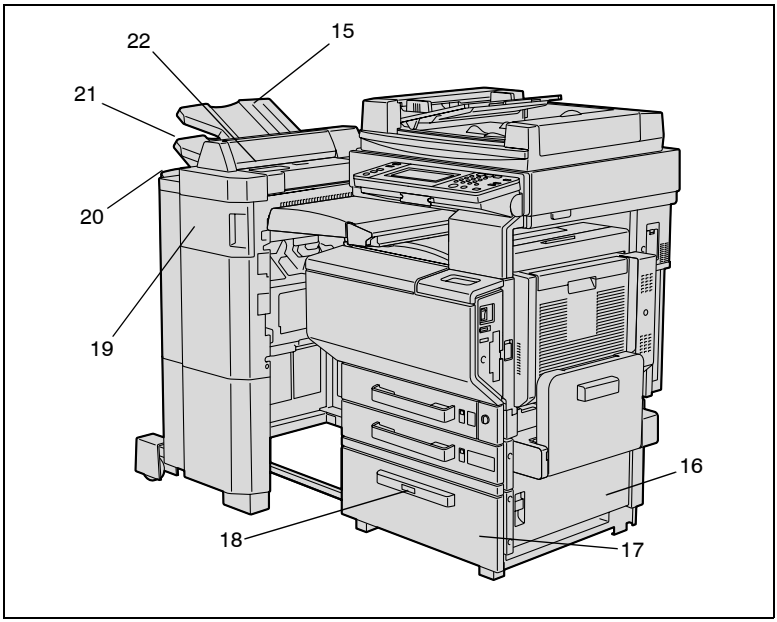
No.	Part Name	Description
6	Right-side door release lever	Used when clearing paper misfeeds
7	3rd drawer	Holds up to 500 sheets of paper
8	Storage drawer	Can be used to store paper

Double Paper Feed Cabinet

No.	Part Name	Description
6	Right-side door release lever	Used when clearing paper misfeeds
7	3rd drawer	Each holds up to 500 sheets of paper.
8	4th drawer	

Finisher FS-601

No.	Part Name	Description
9	Lower paper output tray (bound paper tray)	Collects copies that were bound
10	Front door	Opened when replacing the staple cartridge
11	Paper output tray (elevated tray)	Collects copies
12	Upper door	Opened when clearing paper misfeeds within the finisher
13	Feed guide	Opened when clearing paper misfeeds within the finisher
14	Transport guide	Opened when clearing paper misfeeds within the finisher



Job Separator

No.	Part Name	Description
15	Job separator (optional)	Collects printed pages

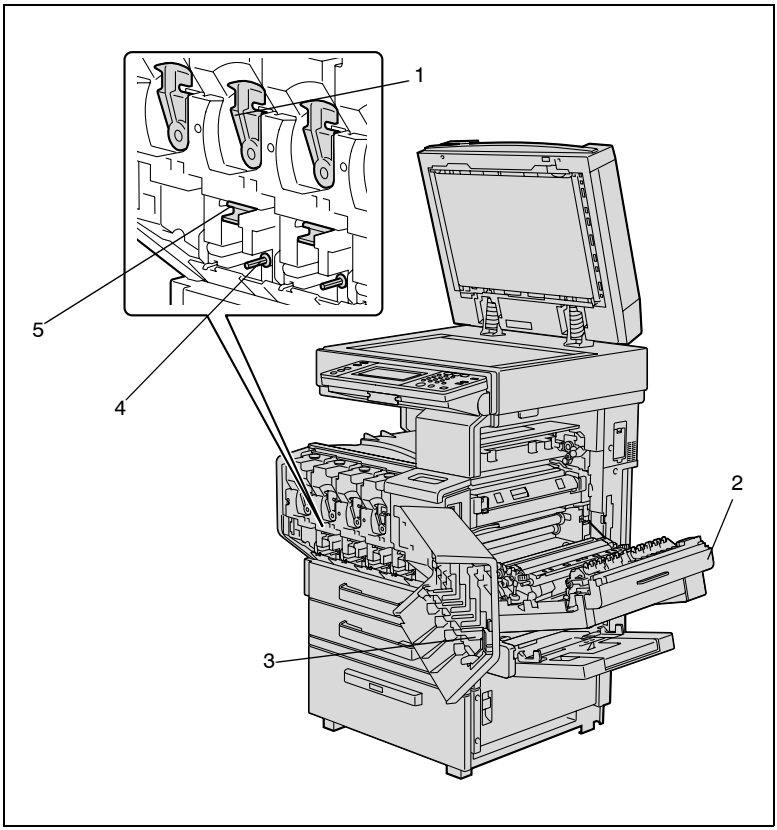
Large-capacity Paper Feed Cabinet

No.	Part Name	Description
16	Right-side door	Opened when clearing paper misfeeds
17	Large-capacity paper feed cabinet	Holds up to 2,500 sheets of paper
18	Drawer release button	Press to open the drawer.

Finisher FS-501

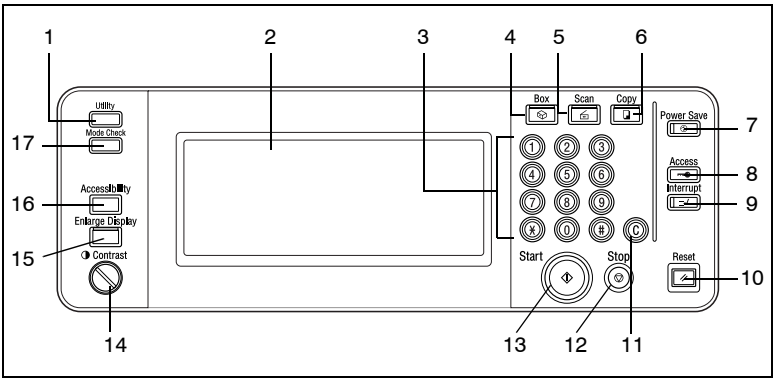
No.	Part Name	Description
19	Front door	Opened when clearing paper misfeeds within the finisher
20	Secondary paper output tray (sorted copies)	Collects copies that are sorted
21	Primary paper output tray (non sorted copies)	Collects copies that are not sorted (made with the “Non Sort” setting)
22	Upper cover	Opened when clearing paper misfeeds within the finisher

Inside of Machine



No.	Part Name	Description
1	Toner-cartridge-securing lever	Used when installing and replacing the toner cartridges
2	Right-side door	Opened when replacing the fusing unit or clearing misfeeds
3	LED-cleaning tool	Used to clean the surface of the LED unit, for example, when replacing the image transfer belt unit
4	Charger-cleaning tool	Used to clean the electrostatic charger wire, for example, when incorrect copies are produced
5	Imaging-unit-securing lever	Used when installing and replacing the imaging units

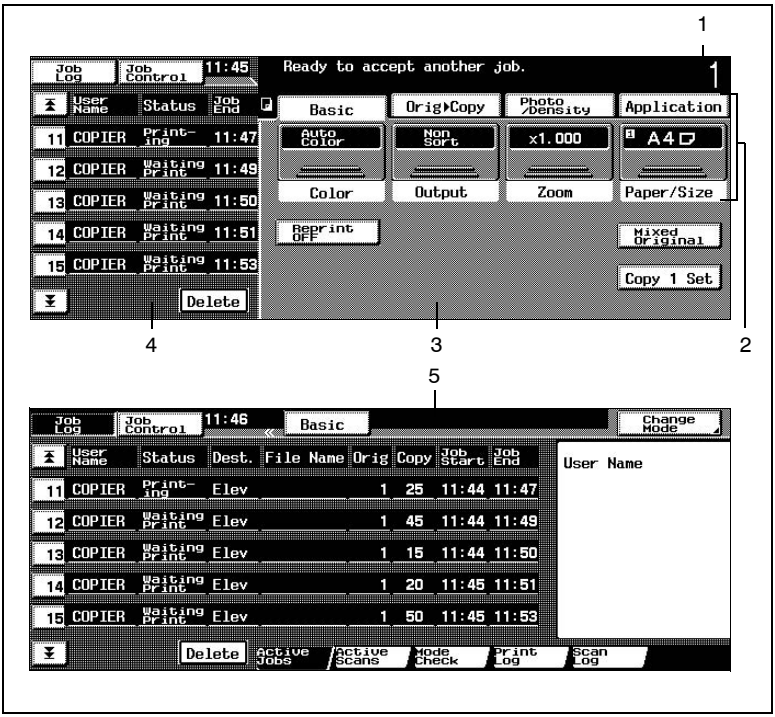
Control Panel



No.	Part Name	Description
1	[Utility] key	Press to display the Utility screen.
2	Touch panel	• Displays various screens and messages. • Specify the various settings by directly touching the panel.
3	Keypad	• Use to type in the number of copies to be produced. • Use to type in the zoom ratio. • Use to type in the various settings.
4	[Box] key	• Press to enter Box mode. • Box mode is only available if the optional hard disk (HD-501) is installed. For details, refer to the MF22 Printer Controller User's Guide.
5	[Scan] key	Press to enter Scan mode. While the machine is in Scan mode, the indicator on the [Scan] key lights up in green. For details on the Scan mode, refer to the MF22 Printer Controller User's Guide.
6	[Copy] key	Press to enter Copy mode. (As a default, the machine is in Copy mode.) While the machine is in Copy mode, the indicator on the [Copy] key lights up in green.
7	[Power Save] key	Press to enter Power Save mode. While the machine is in Power Save mode, the indicator on the [Power Save] key lights up in green and the touch panel goes off. To cancel Power Save mode, press the [Power Save] key again.
8	[Access] key	If Copy Track mode has been set, press this key after entering the account number and access code in order to use this machine.
9	[Interrupt] key	Press to enter Interrupt mode. While the machine is in Interrupt mode, the indicator on the [Interrupt] key lights up in green and the message "Now in Interrupt mode." appears on the touch panel. To cancel Interrupt mode, press the [Interrupt] key again.

No.	Part Name	Description
10	[Reset] key	Press to clear all settings (except programmed settings) entered in the control panel and touch panel.
11	[C] (clear) key	Press to erase a value (such as the number of copies, a zoom ratio, or a size) entered using the keypad.
12	[Stop] key	Press the [Stop] key during copying to stop the copy operation.
13	[Start] key	• Press to start copying. When this machine is ready to begin copying, the indicator on the [Start] key lights up in green. If the indicator on the [Start] key lights up in orange, copying cannot begin. • Press to restart a stopped job.
14	Contrast dial	Use to adjust the contrast of the touch panel.
15	[Enlarge Display] key	Press to enter Enlarge Display mode.
16	[Accessibility] key	Press to display the screen for specifying user accessibility functions.
17	[Mode Check] key	Press to display screens showing the specified settings.

Touch Panel



No.	Item Name	Description
1	Message display	The current machine status, operating instructions, warnings and precautions, and other data including the number of copies selected are displayed here.
2	Functions/Mode setting display	Tabs and keys for selecting screens containing various functions are displayed. Touch a tab to display the corresponding screen. The current settings appear on the [Color], [Output], [Zoom] or [Paper/Size] keys.
3	Settings display	The current settings are shown as messages and icons.
4	Job display	• Jobs currently being performed or waiting to be performed are displayed. • The current sending/receiving status is shown as an icon. • Touch [Job Log] or [Job Control] to display either the Job Log or the Job Control screen.
5	Job Log screens	• In addition to the job display, various functions for checking and controlling jobs are available. • To return to the Basic screen, touch [Basic].

Operating the Touch Panel

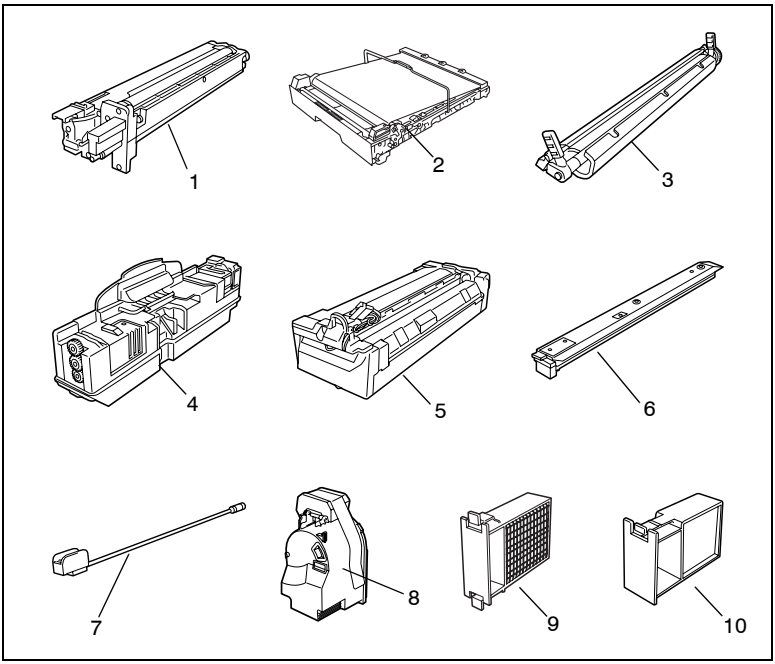
To activate a function or to select a setting, lightly touch the desired function or setting shown on the touch panel.

CAUTION

Be careful not to damage the touch panel.

➔ Never push down on the touch panel with force, and never use a hard or pointed object to make a selection in the touch panel.

Supplies and Parts

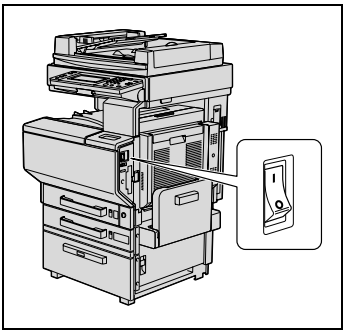


No.	Part Name	Description
1	Imaging unit	Generates the copy image
2	Image transfer belt unit	Layers onto the image transfer belt each of the single colors of the image generated by the imaging unit in order to create a full-color image
3	Image transfer roller unit	Transfers onto the paper a full-color image generated by the image transfer belt unit
4	Waste-toner bottle	Collects waste toner
5	Fusing unit	Fuses the transferred toner to the paper
6	Dust remover	Collects the dust generated in the machine
7	LED-cleaning tool	Used to clean the surface of the LED unit, for example, when replacing the image transfer belt unit
8	Toner cartridge	There are four toner cartridges: cyan (C), magenta (M), yellow (Y) and black (Bk). The combination of the four toners generates full-color images.
9	Ozone filter	Collects the ozone generated in the machine
10	Filter	Collects the toner dust generated in the machine

3.3 Turning the Machine On and Off

Turning On the Machine

➔ Set the power switch to [I].



When the Machine Is Turned On

1 The indicator on the [Start] key lights up in orange.
A screen indicating that the machine is starting up appears.

2 After a few seconds, the message “Now warming up. Ready to scan.” appears on the touch panel, and the indicator on the [Start] key lights up in green. A job can now be queued.

Power Save Mode

If no operation is performed for the specified length of time or if the [Power Save] key is pressed, the touch panel goes off and the machine enters a mode where it conserves power.

This is the Power Save mode.

The machine can receive jobs even while it is in Power Save mode.

As the factory default, the machine enters Power Save mode after 15 minutes.

Additional Information

The machine may enter Sleep mode from Power Save mode.

As the factory default, the machine enters Power Save mode if no operation is performed for 15 minutes, and then the machine enters Sleep mode after 30 minutes have elapsed.

Reference

The length of time after the last operation until the machine enters Power Save mode can be specified using the "Power Save" function on the User's Choice: 1 screen.

Recovering From Power Save Mode

1. Press the [Start] key. (The Power Save mode can also be canceled by pressing any key on the operation panel or by touching the touch panel.)

2. The touch panel comes on again, and then after the machine has finished warming up, it is ready to begin printing.

Sleep Mode

If no operation is performed for the specified length of time, it automatically enters Sleep mode.

As the factory default, the machine enters Sleep mode after 30 minutes.

The length of time after the last operation until the machine enters Sleep mode can be specified using the “Sleep” function on the User’s Choice: 1 screen.

Recovering From Sleep Mode

1. Press the [Start] key. (The Sleep mode can also be canceled by pressing any key on the operation panel or by touching the touch panel.)

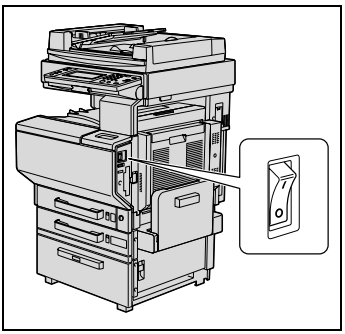
2. The touch panel comes on again, and then after the machine has finished warming up, it is ready to begin printing (after about 99 seconds at normal room temperature (23 °C)).

Turning Off the Machine

1 Touch [Job Log] to check that no jobs are queued.

2 If any copies or printouts remain in the output tray, remove them.

3 Set the power switch to [O].



...

Reminder!

Do not turn off the machine while it is making copies or printing, otherwise a paper misfeed may occur.

Do not turn off the machine while it is scanning or sending or receiving data, otherwise all scanned data or transmission data will be deleted.

Do not turn off the machine while a queued job or stored data is waiting to be printed, otherwise the jobs will be deleted.

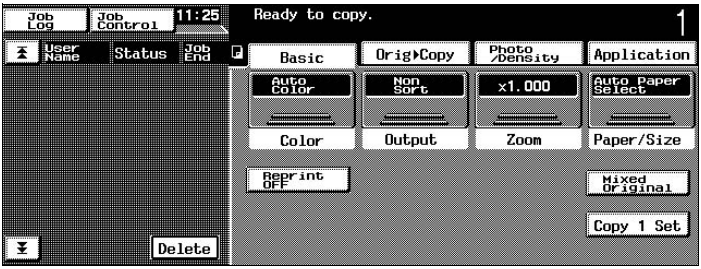
When the Machine Is Turned Off

- The following are deleted.
  - Settings that are not programmed, such as the number of copies
  - Jobs queued to be printed
  - Jobs stored in the memory
  - Jobs saved with the “Reprint” function
- Stored zoom ratios, programmed Copy mode settings, Utility mode settings and the data in the User Box are not erased.

3.4 Using the Touch Panel

Description of the Touch Panel

The screen that appears when this machine is turned on (the power switch is set to “I”) is the Basic screen.



The Basic screen uses graphics and messages to show the currently selected settings, the modes and functions that can be selected, and the status of the machine.

Default Settings

The default settings are those that are selected immediately after the machine is turned on (the power switch is set to “|”) and before any mode or function is changed, and that are selected when the [Reset] key is pressed to reset all functions and modes. The default settings serve as a reference for all operations that are to be made.

The default settings when this machine is purchased are listed below.

Default settings	
• Number of copies: 1	• Margin: None specified
• Color: Auto Color	• Thick Original: Off
• Output: Non Sort	• Photo/Density: Text & Photo
• Zoom: × 1.000 (Full Size)	• Screen Pattern: Gradation
• Paper/Size: Auto Paper Select	• Background density: Standard
• Mixed Original: Off	• Copy density: Standard
• Copy 1 Set: Off	• Glossy: Off
• Original: 1 (single-sided)	• Application: All off
• Copy: 1 (single-sided)	• Color Image Adjustment: Standard
• Original Direction: None specified	• Creation: All off

Hint

The language of the displays in the touch panel can be changed using the “Language Select” function on the User’s Choice: 2 screen.

The default settings that the machine resets all functions to can be specified using the Utility mode.

3.5 Loading Paper Into the 1st Drawer

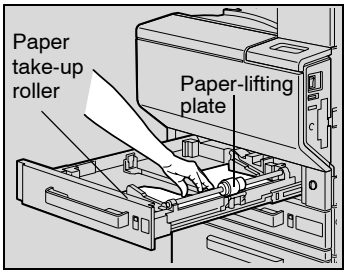
...

Reference

For details on specifying the paper size for the 1st drawer, refer to "To specify the size of the paper in the 1st drawer" on page 4-10.

1 Pull out the paper drawer for the 1st drawer.

2 Press down on the paper-lifting plate until it locks into place.

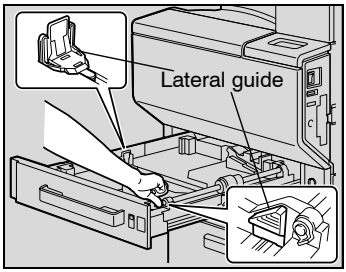


...

Reminder!

Be careful not to touch the surface of the paper take-up roller with your hands.

3 Slide the lateral guides to fit the size of paper to be loaded.

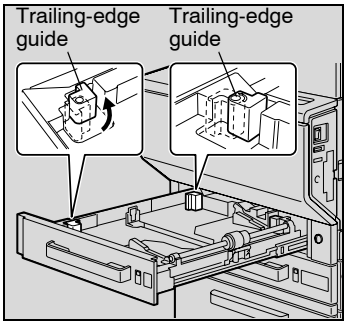


...

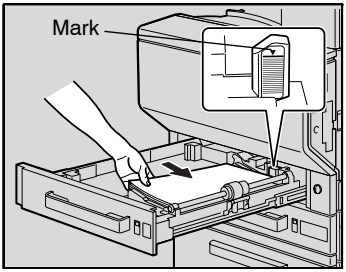
Hint

For paper of a non-standard size, first load the paper, and then adjust the lateral guides to the size of the loaded paper.

4 For "A3Wide" paper, adjust the trailing-edge guides as shown in the illustration.



5 Load the paper into the drawer so that the side of the paper to be printed on (the side facing up when the package was unwrapped) faces up.



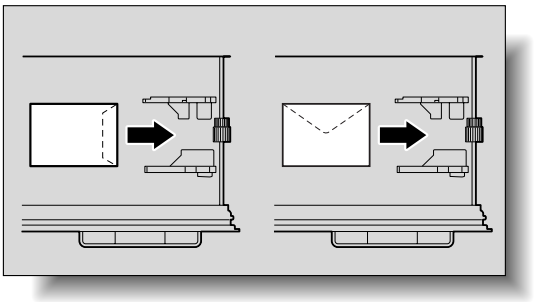
Reminder!
If the paper is curled, flatten it before loading it.

Do not load so many pages that the top of the stack is higher than the ▼ mark.

No more than 20 sheets of paper other than plain paper can be loaded.

Reminder!
Before loading envelopes, press them down to make sure that all air is removed, and make sure that the folds of the flaps are firmly pressed, otherwise the envelopes may become wrinkled or a paper misfeed may occur.

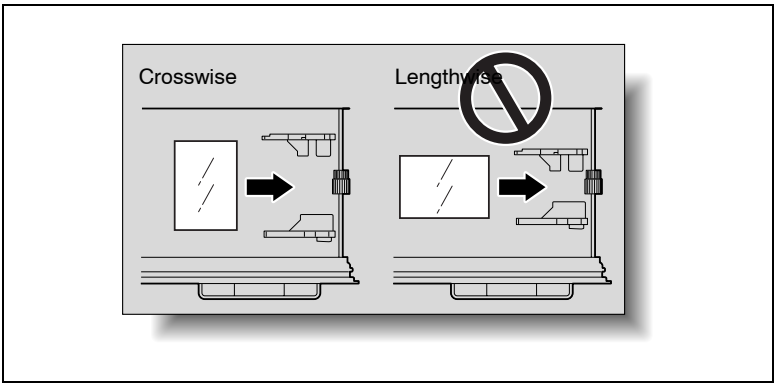
When loading envelopes, load them with the flap side down, as shown in the illustration. If the envelopes are loaded with the flap side up, a paper misfeed may occur. The flap side of envelopes cannot be printed on.



...

Reminder!

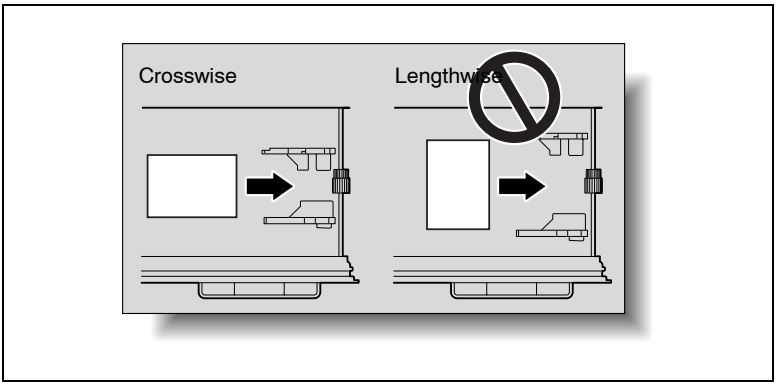
When loading overhead projector transparencies, load them with the longer side as the leading edge, as shown. Do not load overhead projector transparencies lengthwise.



...

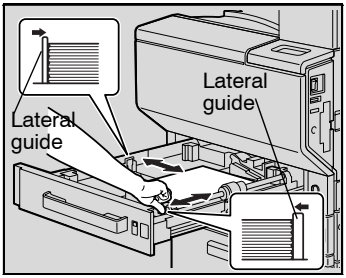
Reminder!

When loading postcards, load them with the shorter side as the leading edge, as shown. Do not load postcard crosswise.

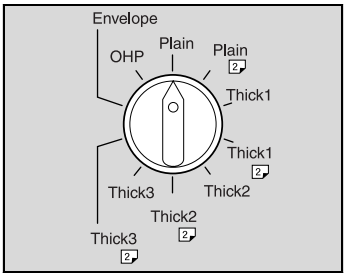


6 If paper of a non-standard size has been loaded, slide the lateral guides against the edges of the loaded paper.

7 Close the paper drawer for the 1st drawer.



8 Turn the media type selection dial to the setting for the type of paper loaded.



Setting	Paper Type	Notes
Plain	Plain Paper	
Plain 2	Second side of a double-sided copy on plain paper	During manual double-sided copying
Thick1	Thick paper 1	When using label sheets
Thick1 2	Second side of a double-sided copy on thick paper 1	During manual double-sided copying
Thick2	Thick paper 2	When using postcards
Thick2 2	Second side of a double-sided copy on thick paper 2	During manual double-sided copying
Thick3	Thick paper 3	
Thick3 2	Second side of a double-sided copy on thick paper 3	During manual double-sided copying
Envelope	Envelopes	
OHP	Overhead projector transparencies	

...

Hint

To print on the back side of previously printed plain paper or thick paper (using manual double-sided copying), set the media type selection dial to the setting appropriate for the paper type when copying onto the second side.

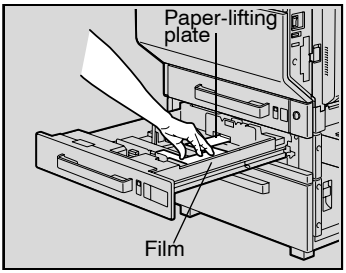
Reference

For details on paper types, refer to “Paper Specifications” on page 5-1.

3.6 Loading Paper Into the 2nd, 3rd or 4th Drawer

1 Pull out the paper drawer.

2 Press down on the paper-lifting plate until it locks into place.

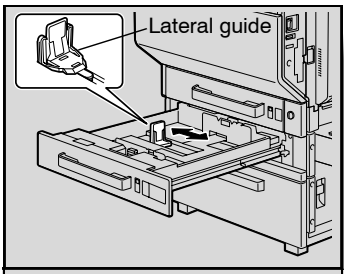


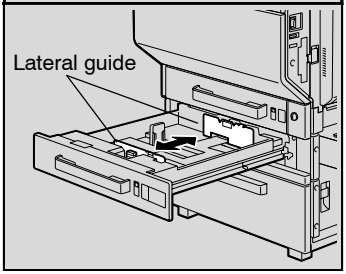
...

Reminder!

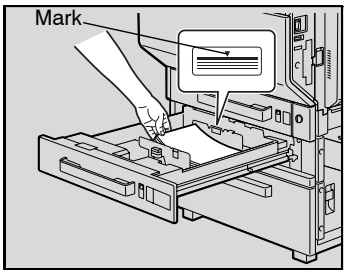
Be careful not to touch the film.

3 Slide the lateral guides to fit the size of paper to be loaded.





4 Load the paper into the drawer so that the side of the paper to be printed on (the side facing up when the package was unwrapped) faces up.



...

Reminder!

If the paper is curled, flatten it before loading it.

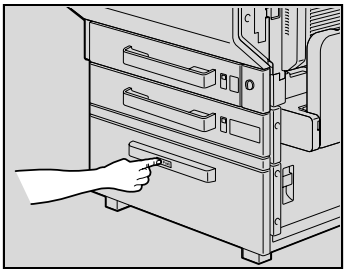
Do not load so many pages that the top of the stack is higher than the ▼ mark.

Paper other than plain paper cannot be fed from the 2nd, 3rd or 4th drawer.
If you wish to make copies onto paper other than plain paper, feed it through the bypass tray or the 1st drawer.

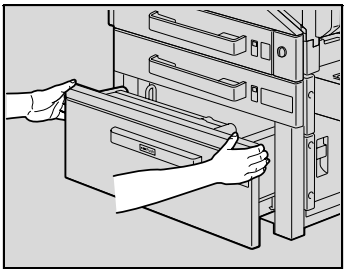
5 Close the paper drawer.

3.7 Loading Paper Into the Large-Capacity Paper Feed Cabinet

1 Press the drawer release button.



2 Pull out the paper drawer for the large-capacity paper feed cabinet.

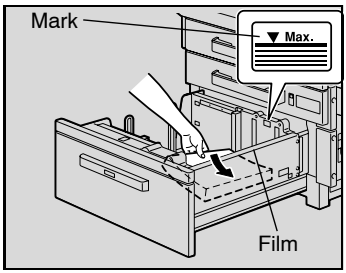


...

Reminder!

If the machine is turned off, the paper drawer for the large-capacity paper feed cabinet cannot be pulled out, even after the drawer release button is pressed. Be sure to first turn on the machine.

3 Load the paper into the right side of the paper drawer for the large-capacity paper feed cabinet so that the side of the paper to be printed on (the side facing up when the package was unwrapped) faces up.



...

Reminder!

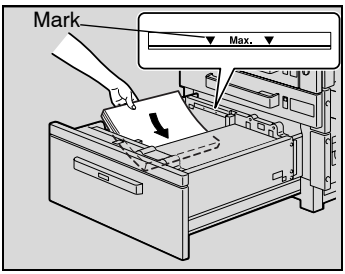
Be careful not to touch the film.

If the paper is curled, flatten it before loading it.

Do not load so many pages that the top of the stack is higher than the ▼ mark.

Paper other than plain paper cannot be fed from the large-capacity paper feed cabinet. If you wish to make copies onto paper other than plain paper, feed it through the bypass tray or the 1st drawer.

4 Load the paper into the left side of the paper drawer for the large-capacity paper feed cabinet so that the side of the paper to be printed on (the side facing up when the package was unwrapped) faces up.



...

Reminder!

If the paper is curled, flatten it before loading it.

Do not load so many pages that the top of the stack is higher than the ▼ mark.

Paper other than plain paper cannot be fed from the large-capacity paper feed cabinet. If you wish to make copies onto paper other than plain paper, feed it through the bypass tray or the 1st drawer.

5 Close the paper drawer of the large-capacity paper feed cabinet.

3.8 Loading Paper Into the Bypass Tray

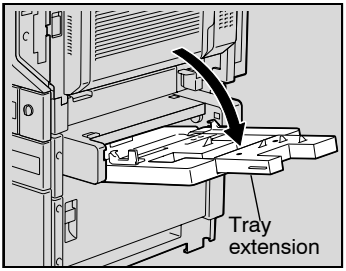
Paper can be fed manually through the bypass tray if you wish to copy onto paper that is not loaded into a paper drawer, or if you wish to copy onto thick paper, postcards, envelopes, overhead projector transparencies or label sheets.

Reference

For details on specifying the paper size for the bypass tray, refer to "To specify the size of the paper in the bypass tray" on page 4-12.

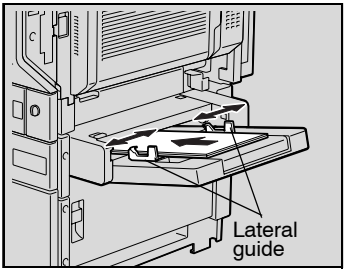
1 Open the bypass tray.

- When loading large-sized paper, open the tray extension.



2 With the side to be printed on facing down, insert the paper as much as possible into the feed slot.

3 Adjust the lateral guides to fit the size of the paper.



Reminder!

Do not load so many pages that the top of the stack is higher than the ▼ mark.

Push the lateral guides firmly up against the edges of the paper.

If the paper is curled, flatten it before loading it.

Additional Information

When making manual double-sided copies, load the paper into the bypass tray so that the second side (the blank side) faces down.

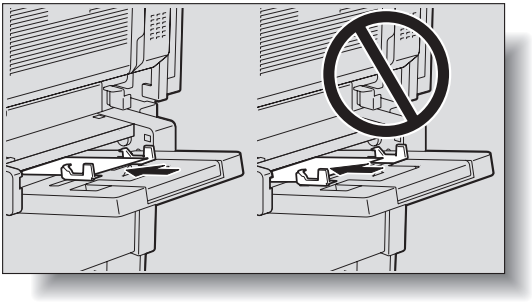
The image will be printed on the surface of the paper facing down when the paper is loaded into the bypass tray.

...

Reminder!

Do not load more than 20 postcards into the bypass tray.

Do not load postcards crosswise.

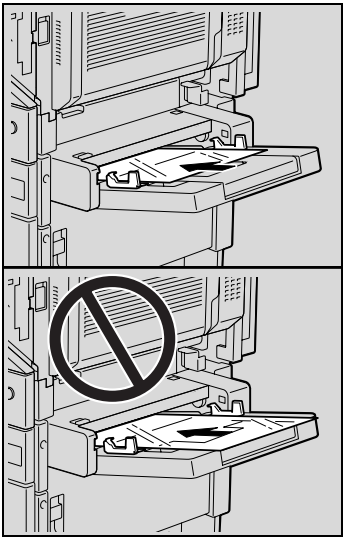


...

Reminder!

Do not load more than 20 overhead projector transparencies into the bypass tray.

When loading overhead projector transparencies, load them with the longer side as the leading edge, as shown. Do not load overhead projector transparencies lengthwise.



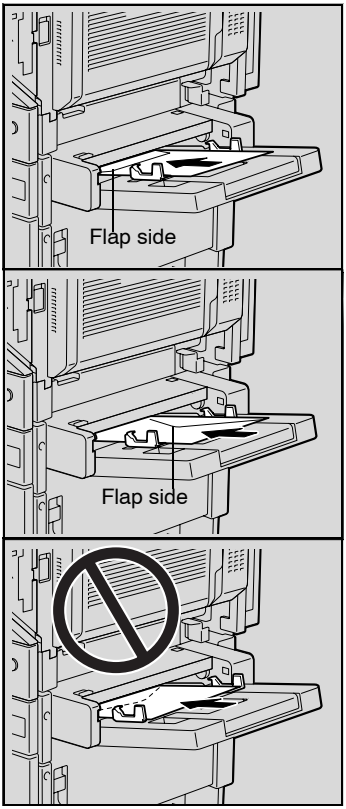
...

Reminder!

Do not load more than 10 envelopes into the bypass tray.

Before loading envelopes, press them down to make sure that all air is removed, and make sure that the folds of the flaps are firmly pressed, otherwise the envelopes may become wrinkled or a paper misfeed may occur.

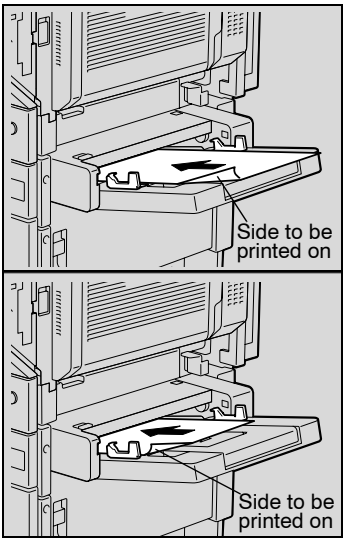
When loading envelopes, load them with the flap side up, as shown in the illustration. If the envelopes are loaded with the flap side down, a paper misfeed may occur. The flap side of envelopes cannot be printed on.



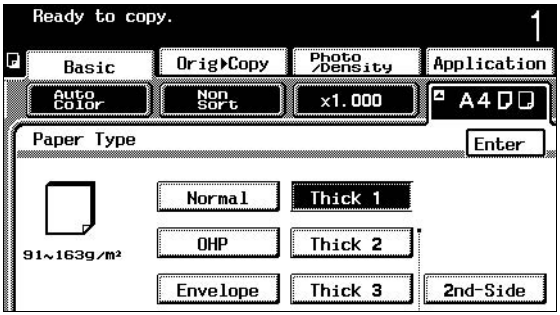
...

Reminder!

Do not load more than 20 label sheets into the bypass tray.



4 Select the appropriate paper type settings.



Hint

If postcards are loaded, set the media type selection dial to "Thick2".

If label sheets are loaded, set the media type selection dial to "Thick1".

To print on the back side of previously printed plain paper or thick paper (using manual double-sided copying), select the appropriate paper type setting, and then touch [2nd-Side].

Reference

For details on selecting the paper size, refer to "Selecting a Paper/ Size Setting" on page 4-9.

For details on paper types, refer to "Paper Specifications" on page 5-1.

3.9 Feeding the Document

Loading the Document Into the Reverse Automatic Document Feeder

The reverse automatic document feeder automatically feeds in, scans, then feeds out each page of a multi-page document, one page at a time. The correct type of document must be loaded in order for the reverse automatic document feeder to function properly.

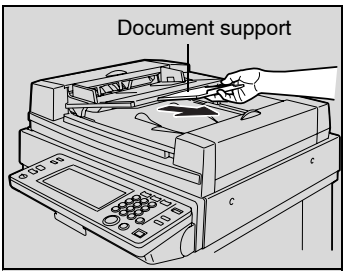
...

Reference

For details on the correct types of documents that can be loaded, refer to "Appropriate Document Types (Using the Reverse Automatic Document Feeder)" on page 6-2.

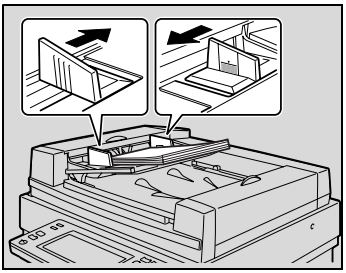
1 Slide the adjustable document guides to fit the size of the document.

- If large-sized documents are to be loaded, pull out the document support.



2 Load the document pages to be copied face up into the document feed tray.

- Load the document pages so that the top of the document is toward the rear or the right side of the machine.



3 Adjust the document guides to the size of the document.

...

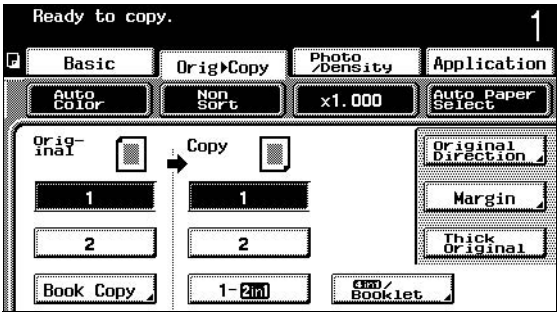
Reminder!

Be sure to load the document correctly, otherwise the pages may not be fed in straight.

4 Touch [Orig > Copy].

The Original ▶ Copy screen appears.

5 To specify the Original Direction, Margin or Thick Original settings, touch the appropriate key.



...

Reference

For details on specifying the Original Direction, Margin or Thick Original settings, refer to "Specifying Conditions of the Original" on page 4-27.

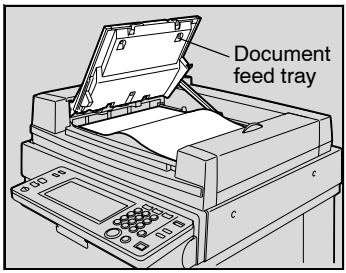
6 Select the desired copy settings, and then press the [Start] key.

7 The pages of the document are fed in, starting with the topmost page.

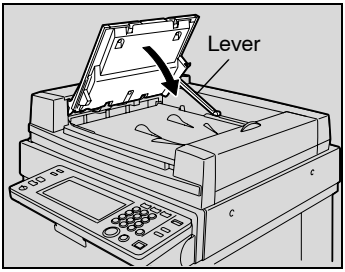
8 After each page is scanned, it is fed out into the document output tray.

9 When removing large-sized documents, carefully lift up the document feed tray (of the reverse automatic document feeder) as far as possible.

10 Remove all document pages from the document output tray.



11 Carefully lower the document feed tray.



CAUTION

Do not press on the lever at the rear of the machine

➜ When closing the document feed tray, otherwise the document feed tray may close quickly and pinch your hand.

Placing the Document On the Original Glass

Place the document directly on the original glass for it to be scanned. Each page of the document must be positioned manually (i.e., the previous one must be removed and the next one placed on the original glass).

This method works best with books and other documents that cannot be fed through the reverse automatic document feeder.

1 Lift open the original cover, or the reverse automatic document feeder if it is installed.

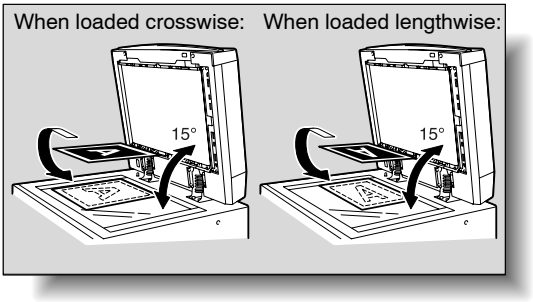
...

Condition

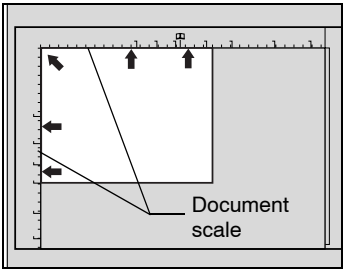
When placing the document on the original glass, be sure to lift open the original cover, or the reverse automatic document feeder if it is installed, 15° or more.
If the document is placed on the original glass without lifting the original cover or reverse automatic document feeder 15° or more, the correct document size will not be detected.

2 Position the document face down onto the original glass.

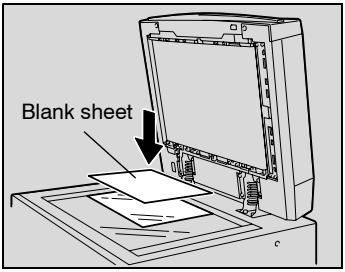
- Load the document pages so that the top of the document is toward the rear or the left side of the machine.



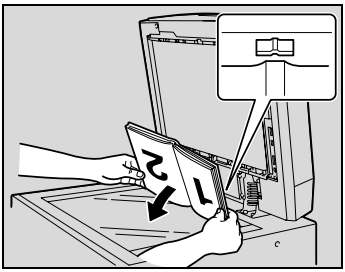
3 Align the document with the document scales.



❍ For transparent or translucent documents, place a blank sheet of paper of the same size as the document over the document.



❍ For bound documents spread over two facing pages, such as a book or magazine, position the top of the document toward the back of the machine with the binding aligned with the mark in the top document scale, as shown.



...

Reminder!

Do not place objects weighing more than 2 kg on the original glass. In addition, do not press down extremely hard on a document placed on the original glass, otherwise the original glass may be damaged.

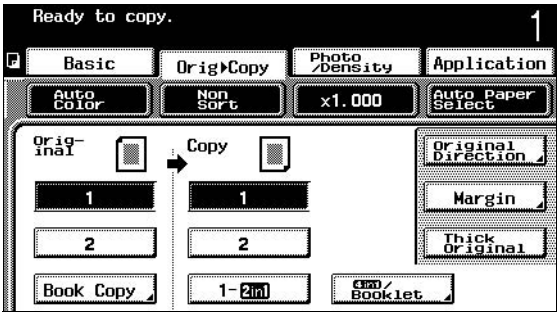
For thick books or large objects, make the copy without closing the original cover or reverse automatic document feeder. When a document is being scanned with the original cover or reverse automatic document feeder open, do not look directly at the light that may shine through the original glass. Although the light that shines through the original glass is bright, it is not a laser beam and, therefore, is not as dangerous.

4 Touch [Orig > Copy].

- When making copies from a page spread, such as an open book or magazine, touch [Book Copy].

The Original ▶ Copy screen appears.

5 To specify the Original Direction, Margin or Thick Original settings, touch the appropriate key.



...

Reference

For details on specifying the Original Direction, Margin or Thick Original settings, refer to "Specifying Conditions of the Original" on page 4-27.

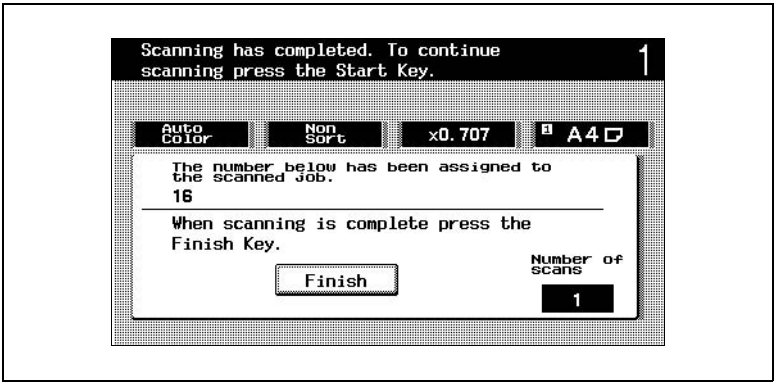
6 Select the desired copy settings, and then press the [Start] key.

Scanning of the document begins.

...

Additional Information

When using a setting where multiple document pages are to be scanned, such as when making 2in1 copies, the message show below appears after step 6.



To continue scanning, remove the document, position the next page of the document on the original glass, and then press the [Start] key.

After all pages of the document have been scanned, touch [Finish], and then press the [Start] key.

The copy job is queued for printing.

7 Lift open the original cover, or the reverse automatic document feeder if it is installed, and then remove the document.

8 Close the original cover, or the reverse automatic document feeder if it is installed.

4 Basic Copy Operations

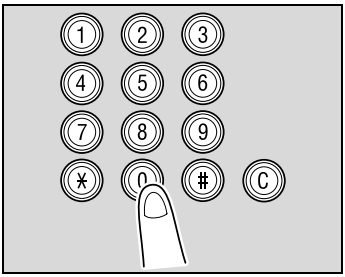
4.1 Specifying the Number of Copies

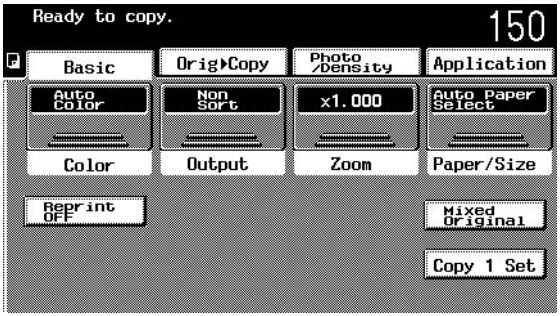
The following procedures describe how to specify and change the setting for the number of copies.

To specify the number of copies

➜ Using the keypad, specify the desired number of copies.

The specified number of copies appears in the touch panel.

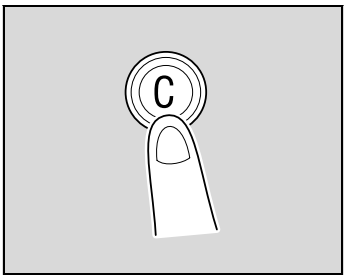


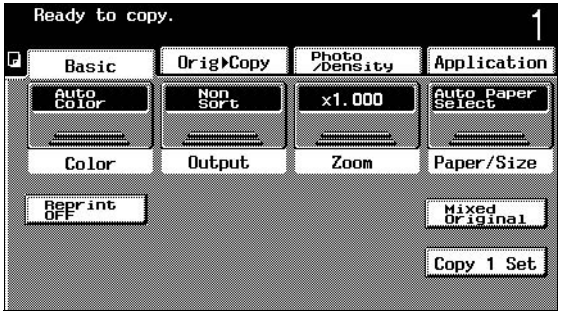


To change the setting for the number of copies

1 Press the [C] (clear) key.

The specified number of copies is cleared, and the setting for the number of copies, shown in the touch panel, is reset to “1”.





2 Using the keypad, specify the desired number of copies.

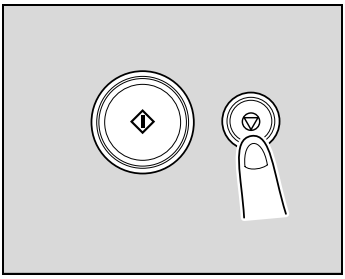
The specified number of copies appears in the touch panel.

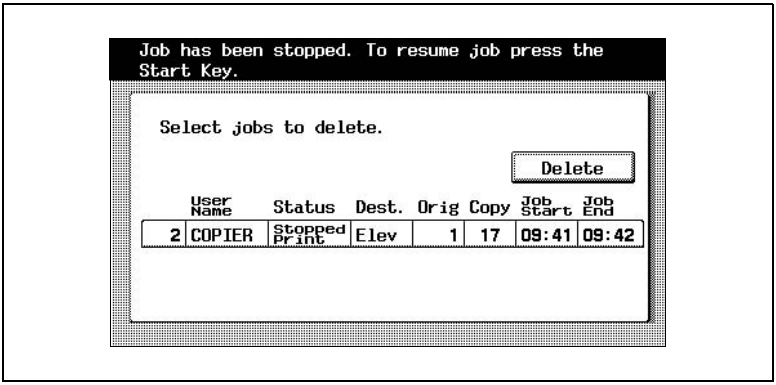
4.2 Stopping Copying

The following procedure describes how to stop printing a copy job.

1 Press the [Stop] key while a job is being printed.
Printing stops.

A screen for deleting jobs appears.





If a document is being scanned for a job, scanning stops when the [Stop] key is pressed.

...

Hint

To continue the stopped job, press the [Start] key.
All stopped jobs continue.

2 To delete a stopped job, select in the job display the job that you wish to delete, and then touch [Delete].
The message “Job has been done improperly. Check the log.” appears, and the selected job is deleted.

3 Touch [Enter].

4.3 Selecting a Color Setting

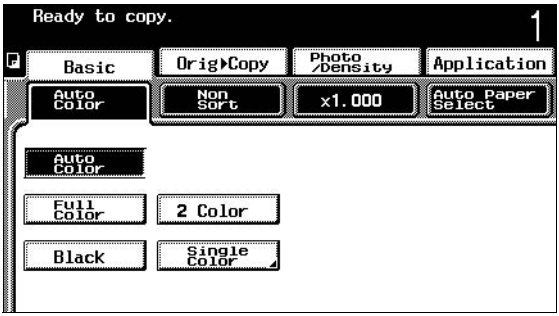
Various Color settings are available for making copies.

To select the Color setting

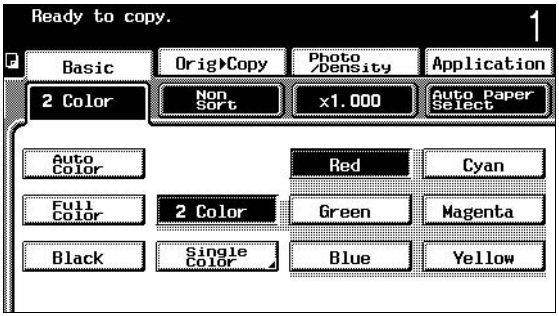
1 Touch [Color].

A screen appears, showing the available Color settings.

2 Select the desired Color setting.



3 To produce two-color copies, touch [2 Color], and then touch the key for the color to be used for the areas printed in color.



4 To produce one-color copies, touch [Single Color].

- In the Single Color 1 or Single Color 2 screens, touch the key for the desired color.
- To change how color gradations in the document are reproduced, touch [Solid].

...

Additional Information

When the "Single Color" setting is selected, the following two methods for reproducing gradations in documents are available.

Relative luminosity: The document will be copied using monocolor concentration variations to express color differences (color shading that can be seen with the eye) and gradation levels. This enables the color of markers, the blue lines in graphing paper and the red of stamps to be distinctly reproduced in copies. This method is selected as the factory default.

Average brightness: The document will be copied using monocolor concentration variations to only express gradation levels, regardless of the color differences in the original document. This is useful for producing monocolor copies of documents containing gradation differences, such as magazines and newspapers, and for offsetting the yellow tint in documents that have yellowed. To select this method, touch [Solid].

5 Touch [Enter].

4.4 Selecting Output Settings

Various settings for sorting and finishing copies are available.

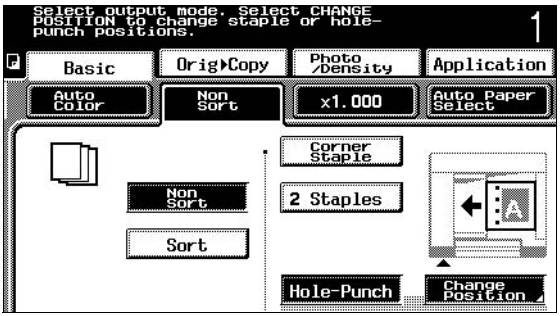
To specify Output settings

...

Condition

If a stapling or hole-punching setting is selected, be sure to load the document so that it is positioned correctly. If the document is not positioned correctly, the staples or punched holes will not be positioned correctly.

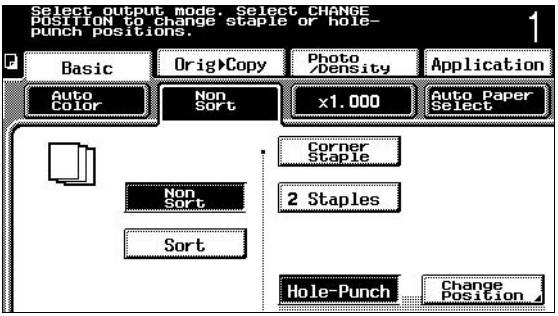
The correct position of the document is shown in the screen. Be sure to position the document according to the instructions that appear.
Example: Document position when the "Hole Punch" setting is selected
The graphic shows that the document should be positioned so that the top of the document is toward the rear of this machine.



1 Touch [Output].

A screen appears, showing the available Output settings.

2 Select the desired Output settings.



3 To change the position of the punched holes, touch [Change Position], and then touch the arrow key below the image of the desired position for the punched holes.

4 Touch [Enter].

4.5 Specifying a Zoom Setting

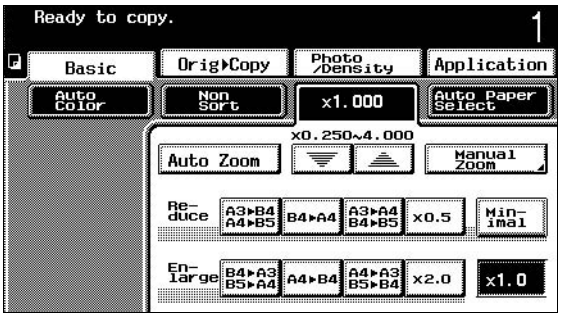
The zoom ratio can be set in order to make a copy on paper with a size different than the document or to enlarge or reduce the size of the documents.

To select a Zoom setting

1 Touch [Zoom].

A screen appears, showing the available Zoom settings.

2 Select the desired Zoom setting.



To enter a Manual Zoom ratio

1 Touch [Zoom].

A screen appears, showing the available Zoom settings.

2 Touch [Manual Zoom].

3 Using the keypad, type in the desired zoom ratio (between ×0.250 and ×4.000).

The entered zoom ratio is displayed.

4 Touch [Enter].

The entered zoom ratio is specified as the Manual Zoom setting.

4.6 Selecting a Paper/Size Setting

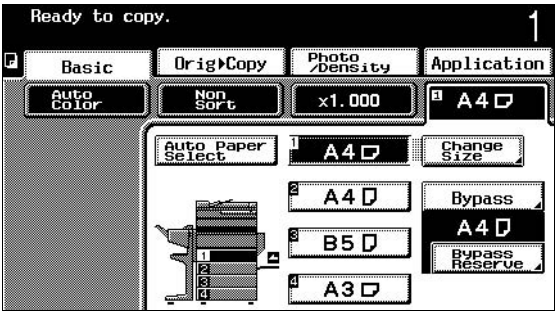
The paper used for making copies can be selected.

To select the paper drawer

1 Touch [Paper/Size].

A screen appears, showing the available paper drawers.

2 Touch the key for the desired paper drawer.



To specify the size of the paper in the 1st drawer

Since the size of standard-sized paper loaded into the 1st drawer is automatically detected, it is usually not necessary to set the paper size.

However, it may be necessary to set the paper size if non-standard-sized paper is loaded or if the paper size is not automatically detected for some reason.

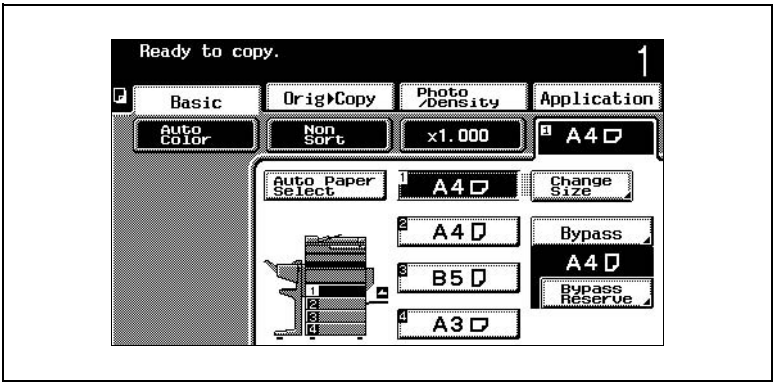
Reference

For details on loading the paper into the 1st drawer, refer to "Loading Paper Into the 1st Drawer" on page 3-23.

1 Touch [Paper/Size].

A screen appears, showing the available Paper/Size settings.

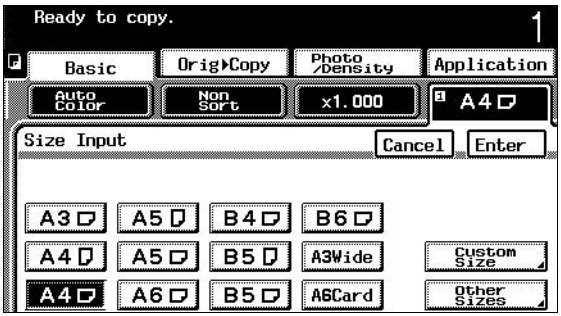
2 Touch the key for the 1st drawer.



3 Touch [Change Size].

The Size Input screen appears.

4 Select the setting for the size of paper that is loaded.



- If the desired paper size is not listed, touch [Other Sizes], and then select the paper size.

...

Reference

For details on specifying a custom paper size, refer to "To set a non-standard (custom) paper size" on page 4-14.

5 Touch [Enter].

The paper size for the 1st drawer is set.

To specify the size of the paper in the bypass tray

Paper can be fed manually through the bypass tray if you wish to copy onto paper that is not loaded into a paper drawer, or if you wish to copy onto special paper.

Reference

For details on loading the paper into the bypass tray, refer to "Loading Paper Into the Bypass Tray" on page 3-32.

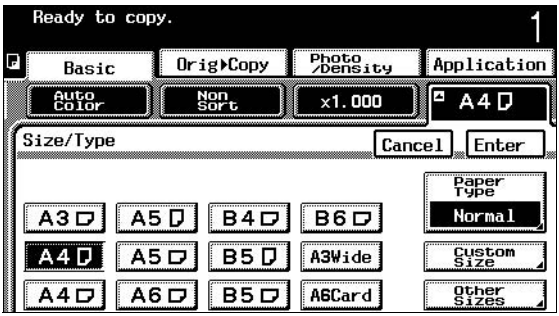
1 Touch [Paper/Size].

A screen appears, showing the available Paper/Size settings.

2 Touch [Bypass].

The Size/Type screen appears.

3 Select the size of the paper to be loaded.



- If the desired paper size is not listed, touch [Other Sizes] to display a screen containing additional paper sizes.

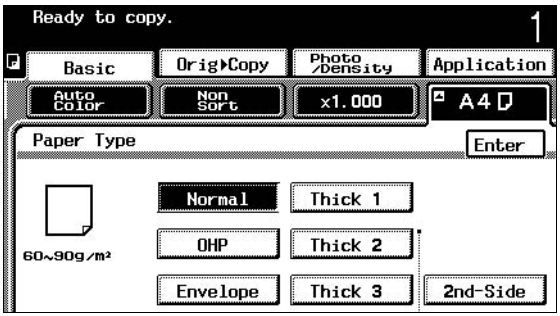
Reference

For details on specifying a custom paper size, refer to "To set a non-standard (custom) paper size" on page 4-14.

4 Touch [Paper Type].

The Paper Type screen appears.

5 Select the type of paper to be loaded.



6 Touch [Enter].

To set a non-standard (custom) paper size

Non-standard-sized paper can be loaded into the 1st drawer or the bypass tray.

If non-standard-sized paper is loaded, it will be necessary to enter the paper size.

The following procedure describes how to specify the size of non-standard paper loaded into the 1st drawer.

1 Touch [Paper/Size].

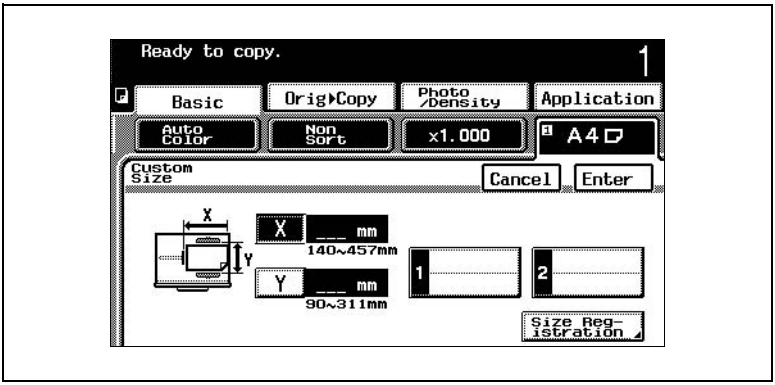
A screen appears, showing the available Paper/Size settings.

2 Touch the key for the 1st drawer, and then touch [Change Size].

- For the bypass tray, touch [Bypass].

The Size Input screen appears.

3 Touch [Custom Size].



The Custom Size screen appears.

4 Make sure that [X] is selected.

5 Using the keypad, type in the length of side X.

The entered length of side X appears.

6 Touch [Y].

7 Using the keypad, type in the length of side Y.

The entered length of side Y appears.

8 Touch [Enter].

The paper size for the 1st drawer is set.

To specify the Bypass Reserve settings for the bypass tray

If paper of the desired size or type is not loaded into any paper drawer or the bypass tray, the Bypass Reserve settings can be specified so that printing can begin when paper of the appropriate size is loaded into the bypass tray.

Condition

The "Bypass Reserve" function can be set only if "Auto Paper Select" is specified on the screen that appears when [Paper/Size] is touched.

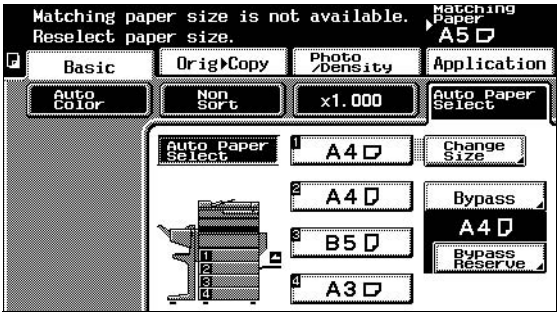
1 Load the document to be copied, and then press the [Start] key.

After scanning of the document begins, the message "Matching paper size is not available Reselect paper size." appears, and scanning stops.

Reference

For details on positioning the document, refer to "Feeding the Document" on page 3-37.

2 Touch [Bypass Reserve].



The Bypass Reservation screen appears.

3 Select the desired paper size.

Hint

Screens containing other paper sizes can be displayed by touching [Custom Size] or [Other Sizes].

4 Touch [Paper Type].

5 Select the desired paper type.

6 Touch [Enter].

The message “Job has been stopped. To resume job press the Start Key.” appears.

7 Press the [Start] key.

Scanning of the document continues.

8 Load paper of the specified size and type into the bypass tray.

The copies are printed.

Hint

If scanning of the document is finished before paper is loaded into the bypass tray, the status “Print Error” appears in the job display. However, after the paper is loaded into the bypass tray, the status changes to “Printing” and printing begins.

Reference

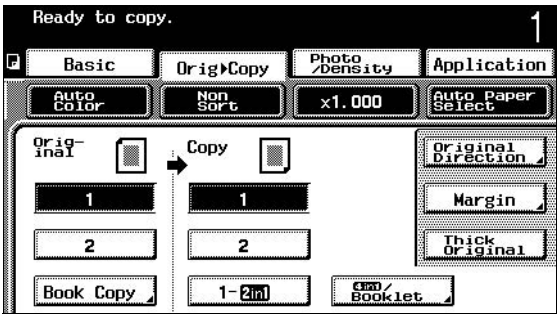
For details on loading the paper, refer to “Loading Paper Into the Bypass Tray” on page 3-32.

4.7 Selecting Original Settings

The type of document that you wish to copy can be selected.

Reference

For details on specifying the type of copy, refer to "Selecting Copy Settings" on page 4-23.



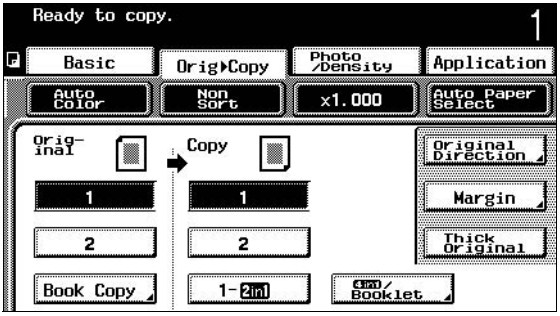
The following Original settings are available.

To specify Original settings

1 Touch [Orig > Copy].

The Original ▶ Copy screen appears.

2 Select the Original setting appropriate for the document to be copied.



To specify Book Copy settings

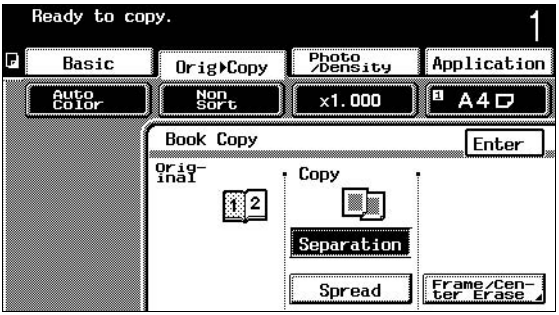
1 Touch [Orig > Copy].

The Original ▶ Copy screen appears.

2 Touch [Book Copy].

The Book Copy screen appears.

3 Select the desired Book Copy setting.



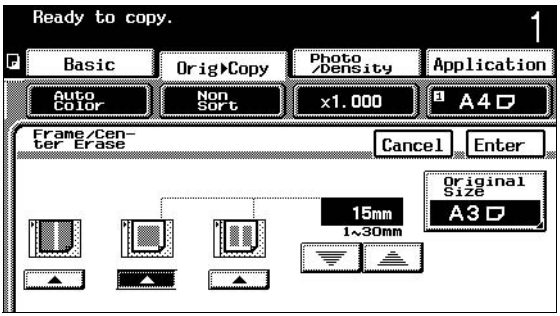
4 Touch [Frame/Center Erase].

The Frame/Center Erase screen appears.

Hint

If necessary, specify a Frame/Center Erase setting. As the factory default, no setting is selected.

5 Touch the key below the desired Frame/Center Erase setting.



6 If the settings for frame-erasing or center- & frame-erasing are selected, touch the big arrow keys to specify the width of the area at the book edges to be erased. The width of the area erased with the center-erasing setting cannot be changed by touching the big arrow keys.

...

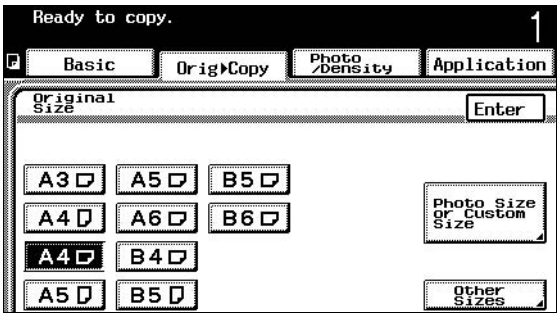
Reminder!

After selecting a Frame/Center Erase setting, be sure to touch [Original Size] on the Frame/Center Erase screen and specify the size of the original document. If the document size is incorrectly set, the correct area of the copy will not be erased.

7 Touch [Original Size].

The Original Size screen appears.

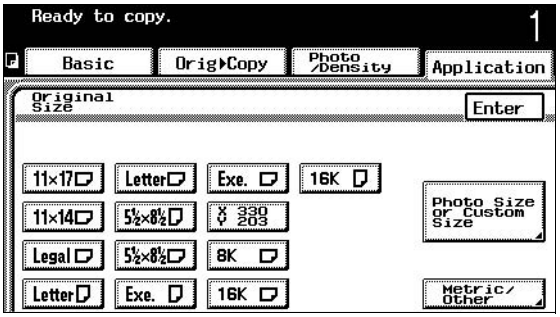
8 Select the document size, and then touch [Enter].



Hint

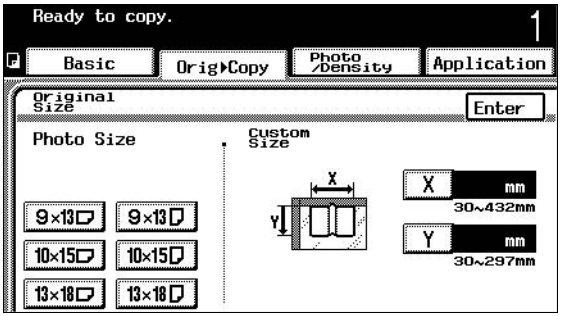
The Original Size setting should be the size of the book spread.

9 If the desired document size is not listed, touch [Other Sizes] to display a screen containing additional document sizes.



❍ Select the appropriate document size, and then touch [Enter].

10 To specify a photo size or a non-standard size, touch [Photo Size or Custom Size].



- Select a photo size, or touch [X] and [Y], and use the keypad to specify the size of the original, and then touch [Enter].

11 Touch [Enter].

The Book Copy screen appears again.

Hint

To cancel the function, touch [Cancel] in the Frame/Center Erase screen.

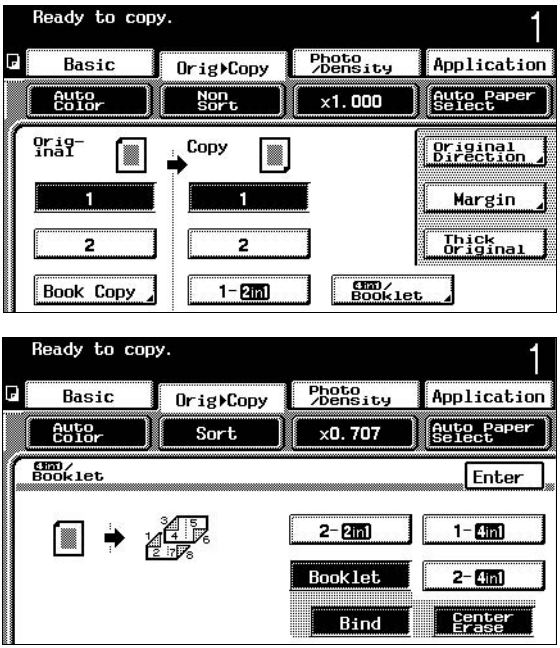
12 Touch [Enter].

The Original ▶ Copy screen appears again.

4.8 Selecting Copy Settings

The desired type of copy can be selected.

For details on specifying the type of original, refer to *"Selecting Original Settings" on page 4-18*.

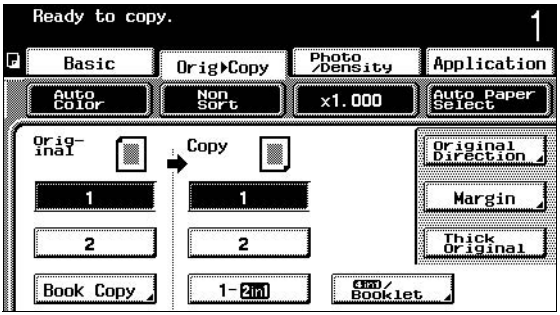


To specify Copy settings

1 Touch [Orig > Copy].

The Original ▶ Copy screen appears.

2 Select the desired Copy setting.



❍ To select 4in1 or double-sided 2in1 copying or booklet copying, touch [4in1/Booklet].

To select the Bind setting

Hint
[Bind] appears only if the optional finisher FS-601 is installed.

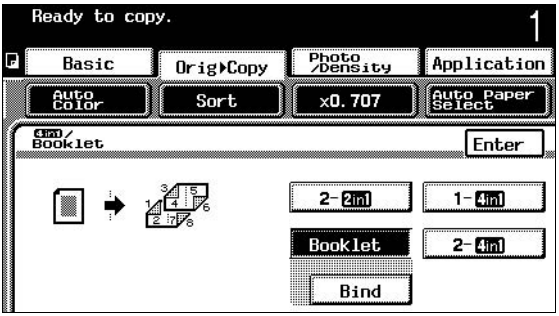
1 Touch [Orig > Copy].

The Original ▶ Copy screen appears.

2 Touch [4in1/ Booklet].

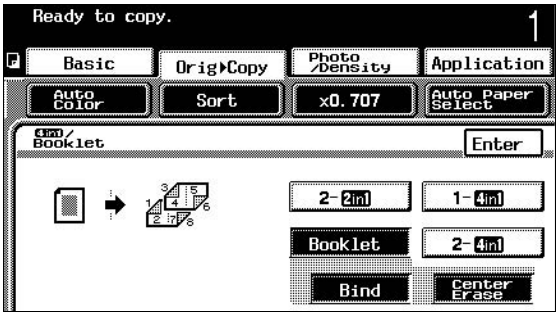
The 4in1/Booklet screen appears.

3 Touch [Booklet] .
[Bind] appears.



Hint
As the factory default, Bind is not selected.

4 Touch [Bind].
[Center Erase] appears.



...

Hint

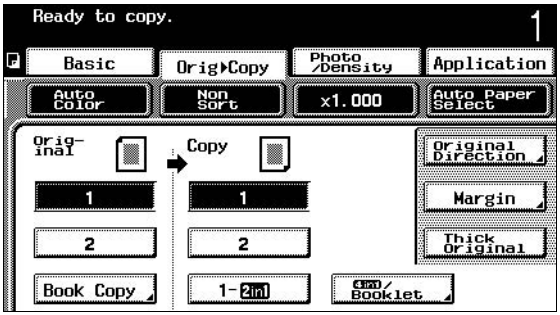
As the factory default, Center Erase is selected.
If you do not wish to use center-erasing, touch [Center Erase] to cancel it.

5 Touch [Enter].

The Original ▶ Copy screen appears again.

4.9 Specifying Conditions of the Original

Additional document conditions, such as its orientation, the position of the binding margin and whether it is made of thick paper, can also be specified from the Original ▶ Copy screen.



The document condition can be specified in any of the following ways.

To specify conditions of the original

As the factory default, no setting is selected.

...

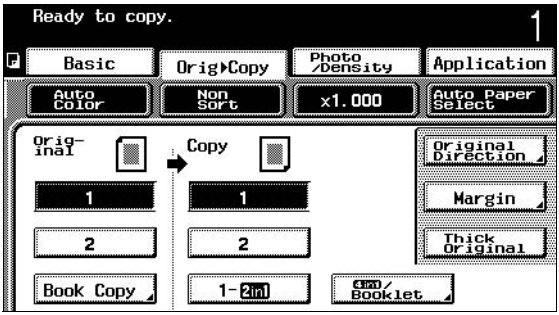
Condition

If the "Book Copy" setting was selected, [Original Direction] is not available.

1 Touch [Orig > Copy].

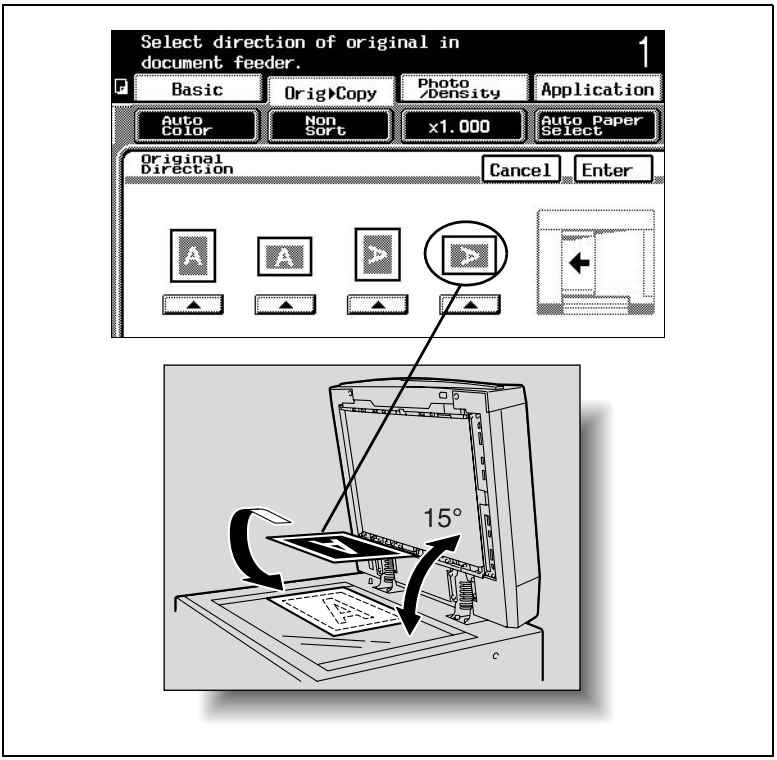
The Original ▶ Copy screen appears.

2 Touch [Original Direction].



The Original Direction screen appears.

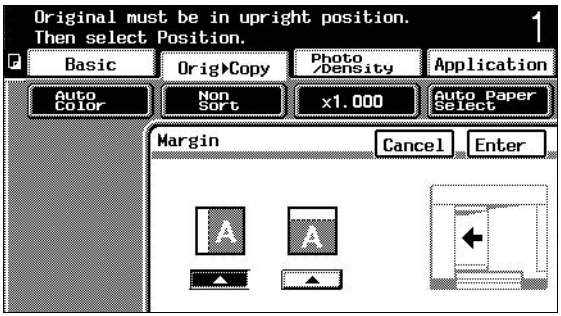
3 Touch the key below the Original Direction setting appropriate for the document to be copied, and then touch [Enter].



Hint

When copying a double-sided document or using a double-sided, 2in1 or 4in1 Copy setting, if the document orientation and document loading direction are not specified, the copies may not be printed in the correct page order or with the correct page arrangement.

4 Touch [Margin].



The Margin screen appears.

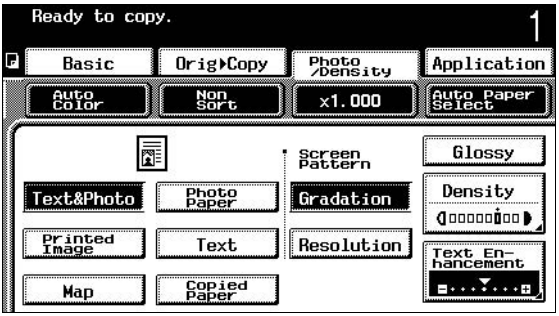
5 Touch the key below the Margin setting appropriate for the document to be copied, and then touch [Enter].

- If the position of the binding margin for the document is different from the selected Margin setting, copies made while erasing certain areas will not be printed correctly.
- When loading a document with a binding margin, position the top of the document toward the rear of this machine. For details, refer to *"Feeding the Document" on page 3-37*.

6 If a thick document is being copied, touch [Thick Original].

4.10 Selecting Photo/Density Settings

The print result can be adjusted according to the image quality of the document.



The following Photo/Density settings are available.

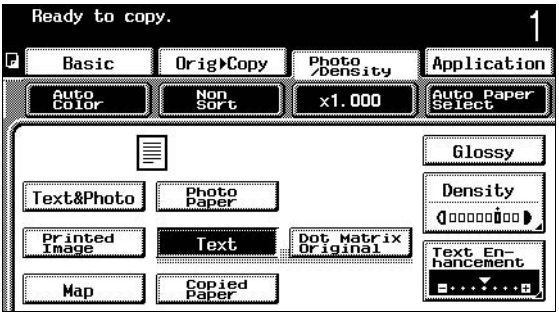
To select a Photo/Density setting

1 Touch [Photo/Density].

The Photo/Density screen appears.

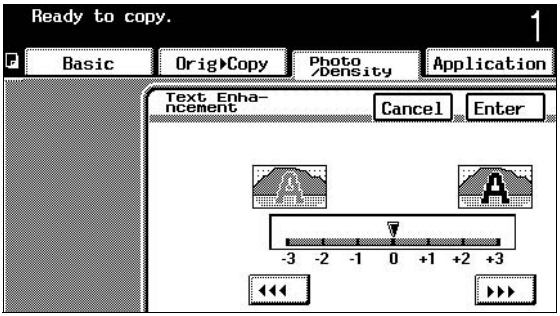
2 Select the setting appropriate for the document to be copied.

- If [Text] is selected, [Dot Matrix Original] appears.



3 For documents with faint text (such as that written with a pencil), touch [Dot Matrix Original].

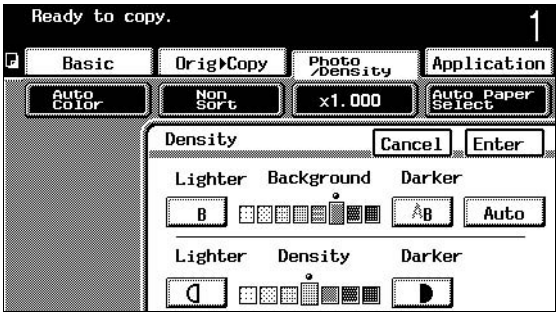
4 For documents consisting of text that overlaps images such as illustrations or graphs (text with a background), touch [Text Enhancement].



5 Touch the arrow keys to select the desired text density level.

6 Touch [Enter].

7 When copying a document with a background color or to adjust the copy density, touch [Density].
The Density screen appears.



- To manually specify the density of the background color, touch the Lighter and Darker keys to adjust the Background setting.
- To automatically set the density of the background color, touch [Auto].
- To specify the density of the copy, touch the Lighter and Darker keys to adjust the Density setting.

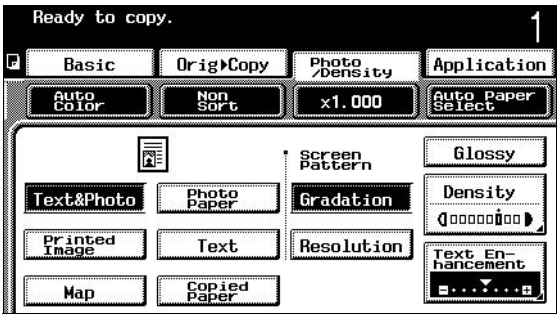
8 Select the desired density settings.

9 Touch [Enter].

To select a glossy finish (“Glossy” setting)

1 Touch [Photo/Density].
The Photo/Density screen appears.

2 Touch [Glossy].



To select a Screen Pattern setting

If moire patterns appears in the copied paper, change the Screen Pattern setting, and then make another copy to compare the effects. Make the copies using the Screen Pattern setting that results in the least moire patterns.

1 Touch [Photo/Density].

2 Touch [Gradation] or [Resolution], depending on the desired copy quality.

Additional Information
Moire patterns are a repeating pattern that occasionally appears when images containing a repeating pattern or lines are copied.

Regardless of which Screen Pattern setting is selected, the moire patterns in copied papers cannot be completely removed.

5 Copy Paper

5.1 Paper Specifications

Use paper that meets the following specifications.

Reference

For details on loading paper into the machine, refer to corresponding sections in "Before Making Copies" on page 3-1.

Paper Types

Paper Type Weight (g/m²)Paper Source, Etc.	Plain Paper 60 g/m² to 90 g/m²	Thick Paper 1 91 g/m² to 150 g/m²	Thick Paper 2 151 g/m² to 209 g/m²	Thick Paper 3 210 g/m² to 256 g/m²
Multiple bypass tray	○	○	○	○
1st drawer	○	○	○	○
2nd drawer	○	—	—	—
Single/Double paper feed cabinets*	○	—	—	—
Large-capacity paper feed cabinet*	○	—	—	—
Double-sided copies**	○	—	—	—
Finished copies***	○	—	—	—

Paper Type Paper Source, Etc.	Overhead Projector Transparencies	Postcards	Envelopes	Label Sheets
Multiple bypass tray	○	○	○	○
1st drawer	○	○	○	○
2nd drawer	—	—	—	—
Single/Double paper feed cabinets*	—	—	—	—
Large-capacity paper feed cabinet*	—	—	—	—
Double-sided copies**	—	—	—	—
Finished copies***	—	—	—	—

* The single and double paper feed cabinets and the large-capacity paper feed cabinet are optional.

** If the optional automatic duplex unit is used to make double-sided copies, only certain types of paper can be used. When making double-sided copies, only use paper with a weight between 64 g/m^2 and 90 g/m^2.

*** If the optional finisher is used to sort, punch holes and staple, only certain types of paper can be used.

Paper Sizes

Non-standard-sized paper:

Paper Source	Paper Width	Paper Length
Multiple bypass tray	90 mm to 311 mm	140 mm to 457 mm
1st drawer		
2nd drawer	—	—
Single/Double paper feed cabinets*		
Large-capacity paper feed cabinet*		

Standard-sized paper:

Paper Size Paper Source, Etc.	A3 Wide	A3 L	B4 L	A4 L	A4 C	B5 L	B5 C
Multiple bypass tray	○	○	—	○	○	○	○
1st drawer	○	○	—	○	○	○	○
2nd drawer	—	○	○	○	○	○	○
Single/Double paper feed cabinets*	—	○	○	○	○	○	○
Large-capacity paper feed cabinet*	—	—	—	—	○	—	—
Double-sided copies**	○	○	○	○	○	○	○
Finished copies***	○	○	○	○	○	○	○

Paper Size Paper Source, Etc.	A5 L	A5 C	B6 L	B6 L
Multiple bypass tray	○	○	○	○
1st drawer	○	○	○	○
2nd drawer	○	—	—	—
Single/Double paper feed cabinets*	—	—	—	—
Large-capacity paper feed cabinet*	—	—	—	—
Double-sided copies**	—	—	—	—
Finished copies***	○	○	○	○

* The single and double paper feed cabinets and the large-capacity paper feed cabinet are optional.

** If the optional automatic duplex unit is used to make double-sided copies, only certain types of paper can be used. When making double-sided copies, only use paper with a weight between 64 g/m^2 and 90 g/m^2.

*** If the optional finisher is used to sort, punch holes and staple, only certain types of paper can be used.

Paper Capacity

Paper Type Paper Source, Etc.	Plain Paper	Thick Paper 1	Thick Paper 2	Thick Paper 3
Multiple bypass tray	150 sheets	20 sheets	20 sheets	20 sheets
1st drawer	250 sheets	20 sheets	20 sheets	20 sheets
2nd drawer	500 sheets	—	—	—
Single/Double paper feed cabinets*	500 sheets/ 1,000 sheets	—	—	—
Large-capacity paper feed cabinet*	2,500 sheets	—	—	—

Paper Type Paper Source, Etc.	Overhead Projector Transparencies	Postcards	Envelopes	Label Sheets
Multiple bypass tray	20 sheets	20 sheets	10 sheets	20 sheets
1st drawer	20 sheets	20 sheets	20 sheets	20 sheets
2nd drawer	—	—	—	—
Single/Double paper feed cabinets*	—	—	—	—
Large-capacity paper feed cabinet*	—	—	—	—

* The single and double paper feed cabinets and the large-capacity paper feed cabinet are optional.

Reminder!

The following types of paper should not be used, otherwise decreased print quality, paper misfeeds or damage to the machine may occur:

Overhead projector transparencies that have already been fed through the machine (even if the transparency is still blank).
Paper that has been printed on by a heat-transfer printer or an inkjet printer.
Paper that is either extremely thick or extremely thin.
Folded, curled, wrinkled, or torn paper.
Paper that has been left unwrapped for a long period of time.
Damp paper.
Perforated paper or paper with punched holes.
Extremely smooth or extremely rough paper, or paper with an uneven surface.
Paper that has been treated, such as carbon-backed, heat-sensitive or pressure-sensitive paper.
Paper that has been decorated with foil or embossing.
Paper of various sizes.
Paper of a non-standard shape (not rectangular).
Paper that is bound with glue, staples or paper clips.
Paper with labels attached.
Paper with ribbons, hooks, buttons, etc. attached.

5.2 Paper Storage

Observe the following precautions when storing the paper.

- Store the paper in a location that meets the following requirements.
  - Not exposed to direct sunlight
  - Not exposed to a flame
  - Not exposed to high humidity
  - Not extremely dusty
- Unwrapped paper should be placed in a plastic bag and stored in a cool, dark location.
- Keep paper out of the reach of children.

6 Original Documents

6.1 Document Feeding

Document Feeding Methods

The document can be fed in either of the following two ways. Be sure to position the document correctly according to the type of document being copied.

Reference

For details on feeding the document, refer to "Feeding the Document" on page 3-37.

Document Feed Method	Features
Using the reverse automatic document feeder	Using the reverse automatic document feeder, a multi-page document can be fed automatically. This feed method can also be used with double-sided documents, and is perfect for multi-page double-sided documents. (See page 3-37.)
Using the original glass	The document is placed directly on the original glass, then scanned. Each page of the document must be positioned manually (i.e., the previous one must be removed and the next one placed on the original glass). This method is best with books and other documents that cannot be fed through the reverse automatic document feeder. (See page 3-40.)

Appropriate Document Types (Using the Reverse Automatic Document Feeder)

Reminder!
Be sure to use documents appropriate for the feed method being used, otherwise a paper misfeed or damage to the document may occur.

Plain paper

	Single-Sided Documents	Double-Sided Documents
Document paper type/Weight	Plain paper: 35 g/m^2 to 128 g/m^2	Plain paper: 50 g/m^2 to 110 g/m^2
Document paper size	A3 L, B4 L, A4 L/C, B5 L/C, A5 L/C, B6 L, 11 × 15, Foolscap*	
Paper capacity	100 sheets (80 g/m^2)	

* The default Foolscap size is 330 mm × 203 mm. To change the Foolscap size, contact your service representative

Thick paper

	Single-Sided Documents
Document paper type/Weight	Plain paper: 129 g/m^2 to 210 g/m^2
Document paper size	A3 L, B4 L, A4 L/C, B5 L/C, A5 L/C, B6 L, 11 × 15, Foolscap*
Paper capacity	38 sheets (210 g/m^2)

* The default Foolscap size is 330 mm × 203 mm. To change the Foolscap size, contact your service representative.

Document of mixed sizes

	Single-Sided Documents	Double-Sided Documents
Document paper type/Weight	Plain paper: 50 g/m^2 to 110 g/m^2	
Document paper size	Refer to the “Mixed Originals Paper Sizes” table below.	
Paper capacity	100 sheets (80 g/m^2)	

Mixed Originals Paper Sizes

Possible combinations for mixed original paper sizes

Maximum Document Width* ¨ Document Size**	A3 L	A4 C	B4 L	B5 C	A4 L	A5 C	B5 L	A5 L
A3 L	○	○	—	—	—	—	—	—
A4 C	○	○	—	—	—	—	—	—
B4 L	○	○	○	○	—	—	—	—
B5 C	○	○	○	○	—	—	—	—
A4 L	○	○	○	○	○	○	—	—
A5 C	—	—	○	○	○	○	—	—
B5 L	—	—	○	○	○	○	○	—
A5 L	—	—	—	—	—	—	○	○

2: Possible —: Not possible

Additional Information

***** *Indicates the widest document size of the mixed originals.*

****** *Indicates document sizes that can be specified together with the maximum document width.*

Document Precautions (Using the Reverse Automatic Document Feeder)

The following types of documents should not be loaded into the reverse automatic document feeder, otherwise paper misfeeds or damage to the document may occur. Instead, these types of documents should be positioned on the original glass.

- Curled documents
- Wrinkled or torn documents
- Highly translucent or transparent documents, such as overhead transparencies or diazo photosensitive paper
- Documents with binder holes
- Documents with many binder holes, such as loose-leaf paper
- Coated documents, such as heat-sensitive or carbon-backed paper
- Documents that are bound, for example, with staples or paper clips
- Documents that are bound in a book or booklet
- Documents that are bound together with glue
- Document pages that have been cut or contain cutouts
- Documents printed on paper thicker than 211 g/m²
- Documents printed on paper thicker than 111 g/m² during double-sided printing
- Inkjet printer paper
- Label sheets
- Offset printing masters
- Documents that have just been printed with this machine

Reminder!
Before loading folded documents, such as those folded in half or in three, into the reverse automatic document feeder, be sure to flatten the pages.

Appropriate Document Types (Using the Original Glass)

Document paper type	Sheets, books, and other three-dimensional objects
Maximum weight	2 kg

Document Precautions (Using the Original Glass)

Observe the following precautions when placing the document on the original glass.

Handle the documents as described:

Standard-/non-standard-sized documents

- The paper size of documents printed on Letter C, Ledger L, 11 × 17, Foolscap paper cannot be automatically detected.
- The document size cannot be detected automatically, therefore, the “Auto Paper Select” setting and the “Auto Zoom” setting cannot be used.
- In the Basic screen, touch [Paper/Size], and then select the appropriate paper size setting.
- For details on selecting the paper size, refer to *“Selecting a Paper/Size Setting” on page 4-9*.

Highly translucent or transparent documents, such as overhead projector transparencies or diazo photosensitive paper

- The document size cannot be detected automatically. Place a blank sheet of paper of the same size over the document.

Thick objects, such as books

- With thick books, the original cover, or the reverse automatic document feeder if it is installed, cannot be closed. Scan the document without closing the original cover or the reverse automatic document feeder.
- Do not place objects exceeding 2 kg on the original glass. In addition, if a book is placed on the original glass, do not press it down extremely hard, otherwise the original glass may be damaged.

Small-Sized Documents

If a document that is too small to be automatically detected is loaded with the “Auto Paper Select” setting selected, copies cannot be made.

However, changing the setting of the “Auto-select paper for small originals” function on the User’s Choice: 2 screen allows copying to begin even if the paper size cannot automatically be detected.

Centering

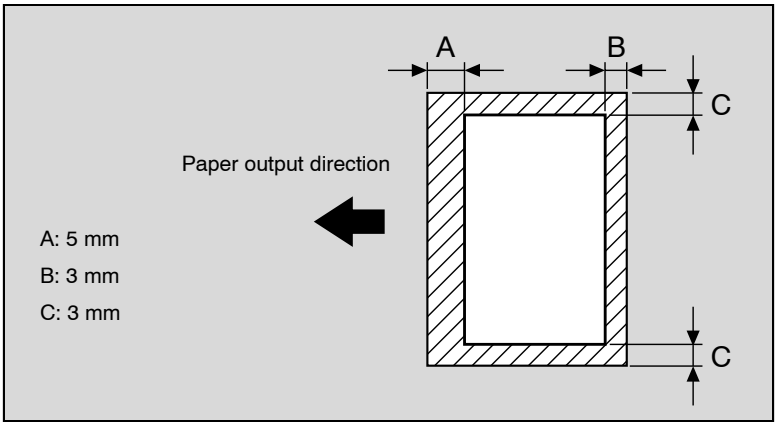
If the document is smaller than the size of the selected paper, the image is printed in the center of the paper.

Whether or not the image is centered in the paper can be specified using the “Centering” function on the User’s Choice: 2 screen.

6.2 Print Area

Any part of the image within the area indicated below is not printed.

- A margin 5 mm from the leading edge of the paper (A)
- A margin 3 mm from the leading edge of the paper (B)
- A margin 3 mm on both sides of the paper (C)



7 Care of the Machine

7.1 Cleaning

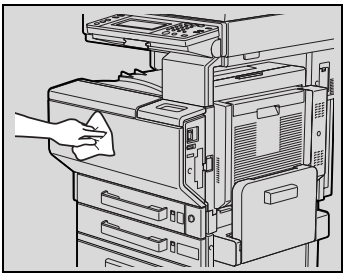
...

Reminder!

Turn off the machine (set the power switch to [O]) before cleaning it.

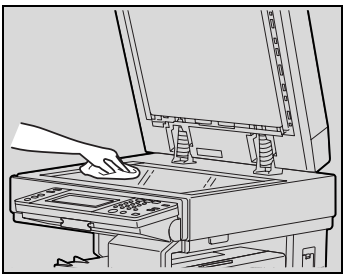
Housing

➔ Clean the surface of the housing by wiping it with a soft cloth dampened with a mild household detergent.



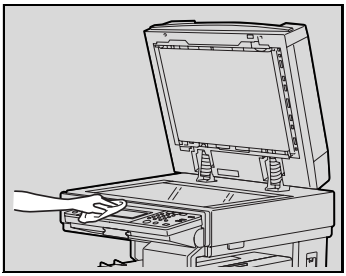
Original Glass

➔ Clean the original glass by wiping it with a soft, dry cloth.



Control Panel

➜ Clean the control panel by wiping it with a soft, dry cloth.



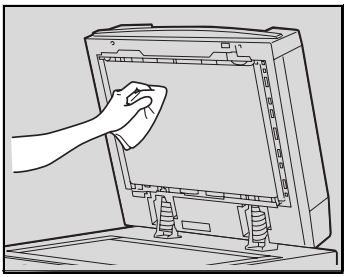
...

Reminder!

Pressing too hard on the control panel or the touch panel may damage them. Never use a mild household detergent or glass cleaner to clean the control panel or touch panel.

Document Transfer Belt

1 Clean the document transfer belt by wiping it with a soft cloth dampened with a mild household detergent.



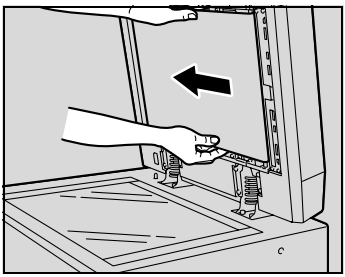
...

Hint

If the original cover is installed, clean the original cover pad in the same way by wiping it with a soft cloth dampened with a mild household detergent.

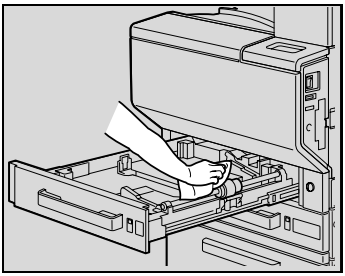
2 Carefully slide the belt to the left to expose a hidden area of the belt.

3 Clean the newly exposed surface of the belt by wiping it with a soft cloth dampened with a mild household detergent (as in step 1).
Repeat the above step until the entire surface of the document transfer belt has been wiped clean.



Paper Take-Up Roller

➔ Clean the paper take-up rollers by wiping them with a soft, dry cloth.

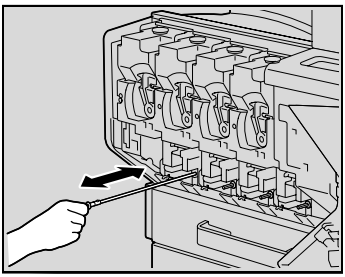


Electrostatic Charger

If the electrostatic charger is dirty, streaks will appear though the copies. If this occurs, clean the charger according to the following procedure.

1 Open the machine's front door.

2 Slowly pull out the charger-cleaning tool as far as possible.
Next, slowly push in the charger-cleaning tool as much as possible.
Repeat the above operations three times.
Perform this same operation to clean each of the other electrostatic chargers.

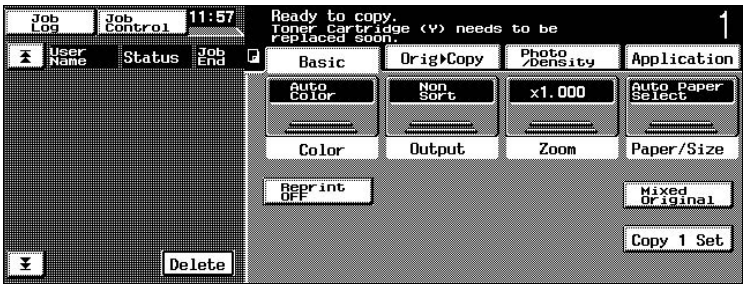


3 Securely insert each charger-cleaning tool, and then close the front door.

8 Touch Panel Messages

8.1 When the Message “Toner Cartridge (X) needs to be replaced soon.” Appears

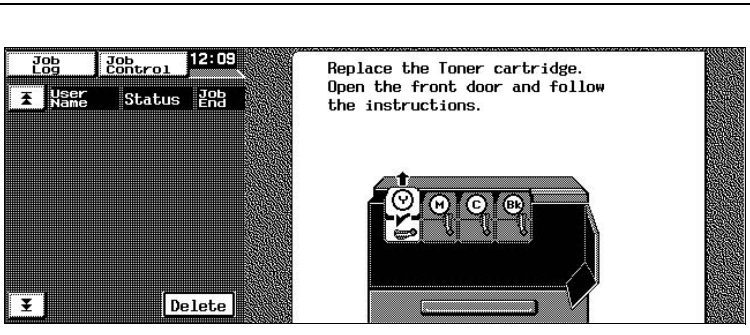
When toner is about to run out, the advance warning message shown below appears.
(As an example, the message for the yellow toner is shown below.)



8.2 When the Message “Replace the Toner cartridge” Appears

When the toner is empty, a warning message appears and copies can no longer be made.

(As an example, the message indicating that the yellow toner is empty (when replaceable by the user) is shown below.)



Replacing the Toner Cartridge

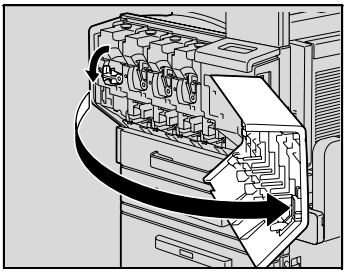
The procedure for replacing any of the toner cartridges (yellow (Y), magenta (M), cyan (C) or black (Bk)) is the same.

The following procedure describes the replacement of the yellow toner cartridge as an example.

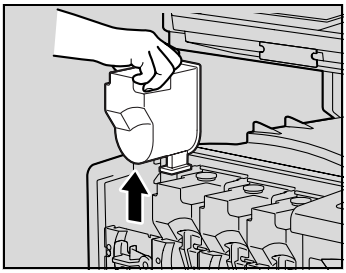
...

Reminder!
Be careful about the installation location of the toner cartridges, since it is different for other colors.

1 Open the front door, and then swing down counterclockwise the toner-cartridge-securing lever for the toner cartridge that you wish to replace.



2 Pull out the empty toner cartridge.



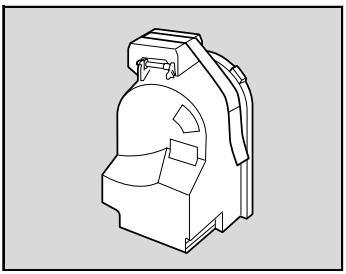
...

Reminder!
In order to prevent the used toner cartridge from dirtying anything, keep it in the box.

Dispose of the used toner cartridge according to your local regulations.

3 Prepare the new toner cartridge.

- Check that the color of the toner in the cartridge is the same color as the toner-cartridge-securing lever.



...

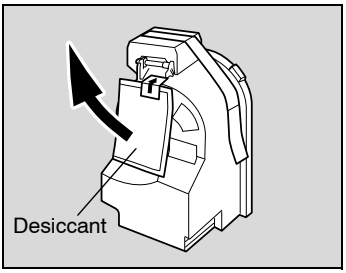
Reminder!

Do not install the toner cartridge of a color different than the one that was removed, otherwise the machine may be damaged.

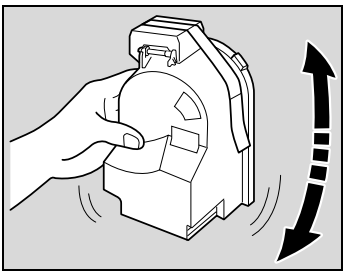
...

Condition

Desiccant is attached to the black toner cartridge. Be sure to remove the desiccant before installing the toner cartridge into the machine.



4 Shake the new toner cartridge well.

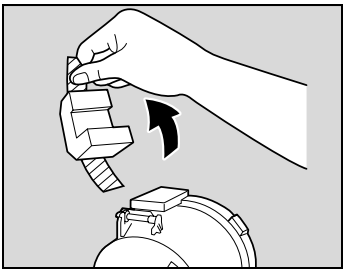


...

Reminder!

The toner within the toner cartridge may have become compacted. If it has, be sure to shake the toner cartridge until the toner is mostly broken up before installing the cartridge.

5 Peel off the tape, and then remove the protective cap.

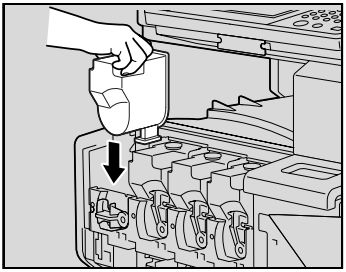


...

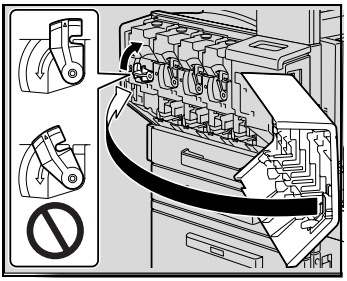
Reminder!

Slowly remove the tape attached to the toner cartridge. If the tape is removed with too much force, toner may spurt out.

6 Position the toner cartridge as shown, and then insert it into its compartment.



7 Swing the toner-cartridge-securing lever up clockwise.

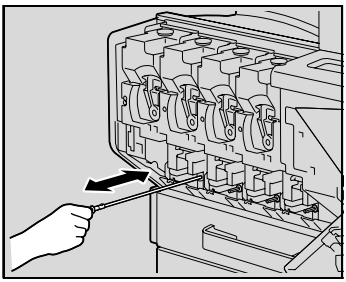


...

Reminder!

Make sure that the toner-cartridge-securing lever is fully swung up, as shown, otherwise the front door cannot be closed.

8 Slowly pull out the charger-cleaning tool as far as possible.
Next, slowly push in the charger-cleaning tool as much as possible.
Repeat the above operations three times.



9 Securely insert the charger-cleaning tool, and then close the front door.

...

Reminder!

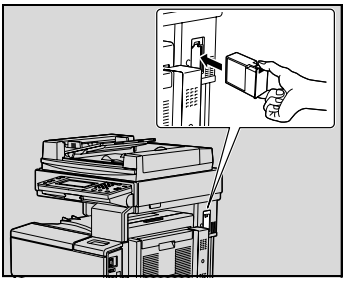
If the door cannot be closed securely, the toner-cartridge-securing lever may not be in its correct position. Check that the toner-cartridge-securing lever is correctly positioned.

. . .

Condition

When replacing the black toner cartridge, be sure to replace the filter.

The filter is included in the package with the black toner cartridge.



. . .

Reference

For details on the filter, refer to “Supplies and Parts” on page 3-16.

. . .

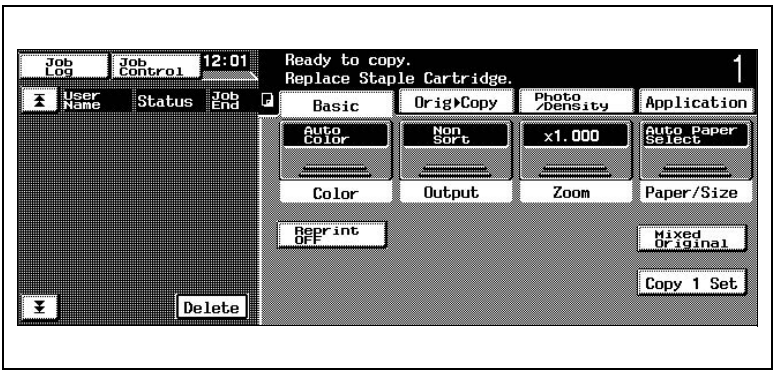
Reminder!

When installing the new filter, fully insert it until it snaps into place.

8.3 When the Message “Replace Staple Cartridge.” Appears

When finisher FS-501 or FS-601 is installed and is about to run out of staples, the message shown below appears.

Follow the procedure described below to replace the staple cartridge.



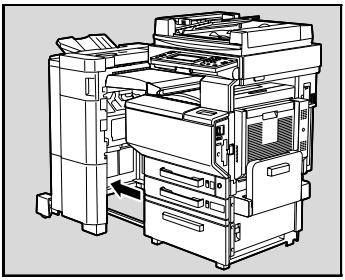
Replacing the Staple Cartridge for FS-501

...

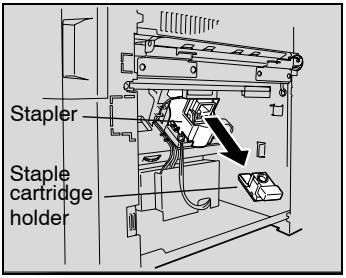
Reminder!

Be sure to replace the staple cartridge only after the message appears, otherwise the machine may be damaged.

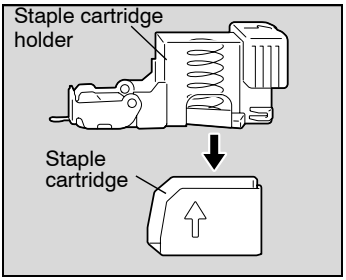
1 Slide the finisher away from the machine.



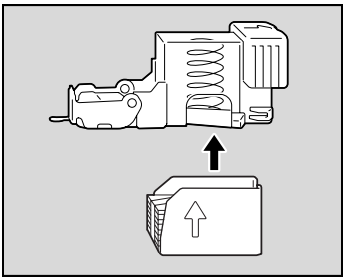
2 Pull the staple cartridge holder out toward you.



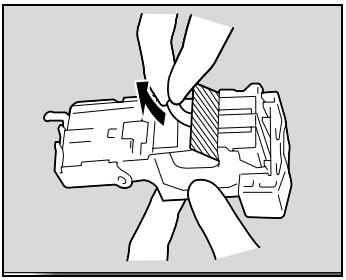
3 Remove the empty staple cartridge from the staple cartridge holder.



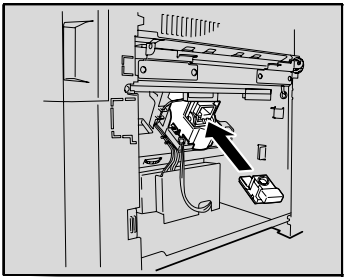
4 Insert the new staple cartridge into the staple cartridge holder.



5 Carefully pull off the seal.



6 Insert the refilled staple cartridge holder until it locks into place.



7 Slide the finisher back against the machine.

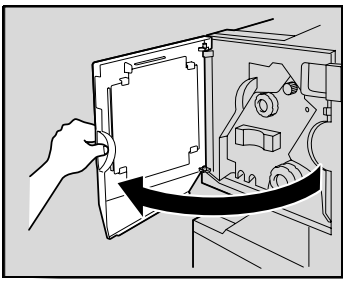
Replacing the Staple Cartridge for FS-601

...

Reminder!

Be sure to replace the staple cartridge only after the message appears, otherwise the machine may be damaged.

1 Open the front door of the finisher.

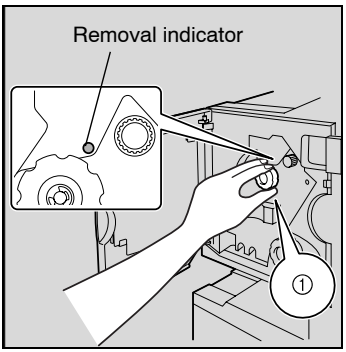


2 Turn misfeed-clearing dial clockwise until the removal indicator is completely blue.

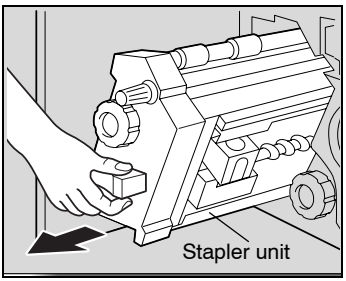
...

Hint

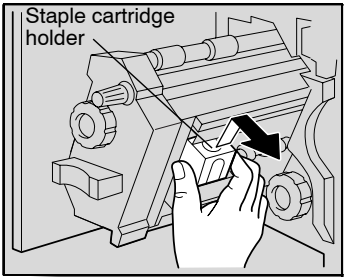
If the dial is turned too far, turn it counterclockwise to adjust it.



3 Slowly pull out the stapler unit as far as possible.

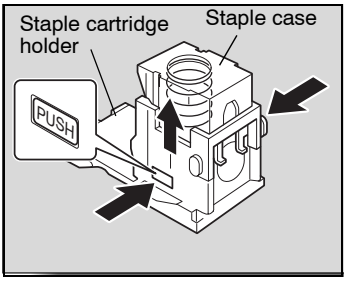


4 Grasp both sides of the staple cartridge holder, lift it up, and then pull it out.

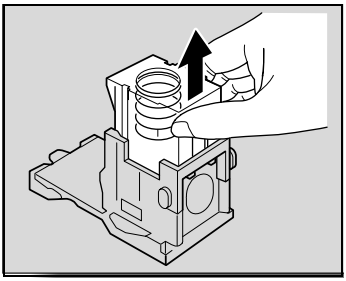


5 Press the button marked “PUSH” on the side of the staple cartridge holder.

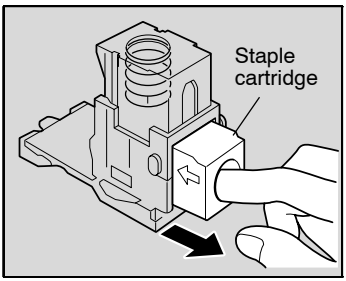
- The staple case is released.



6 Pull up the staple case.

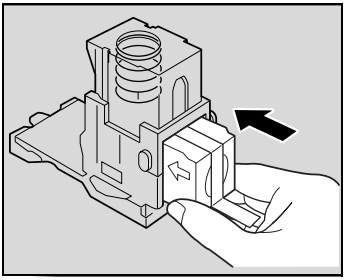


7 Remove the staple cartridge from the staple case.

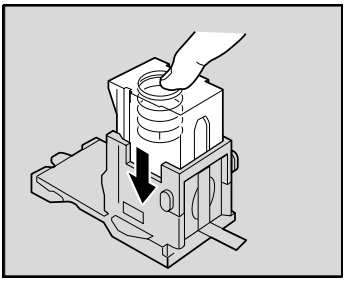


8 Load the staple cartridge holder with a new staple cartridge.

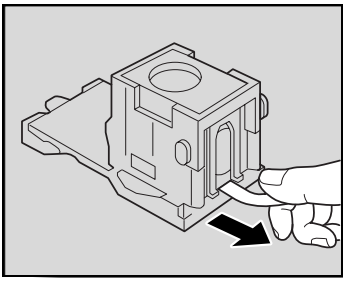
- ❍ Fully insert the staple cartridge as far as possible.



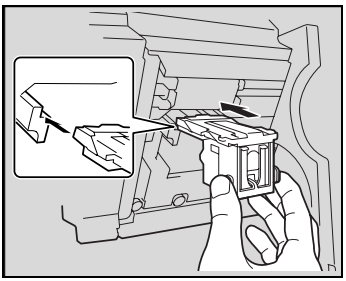
9 Press the staple case down.



10 Peel the tape off of the staple cartridge.



11 Insert the staple cartridge holder, making sure the tabs on the holder slide along the rails in the compartment.

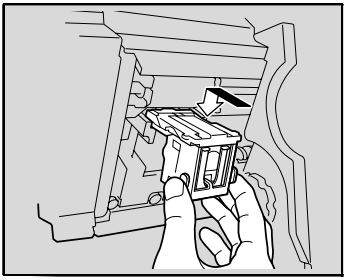


12 Insert the refilled staple cartridge holder until it locks into place.

- ❍ Check that the staple cartridge holder is securely installed.

13 Carefully move the stapler unit back into its original position.

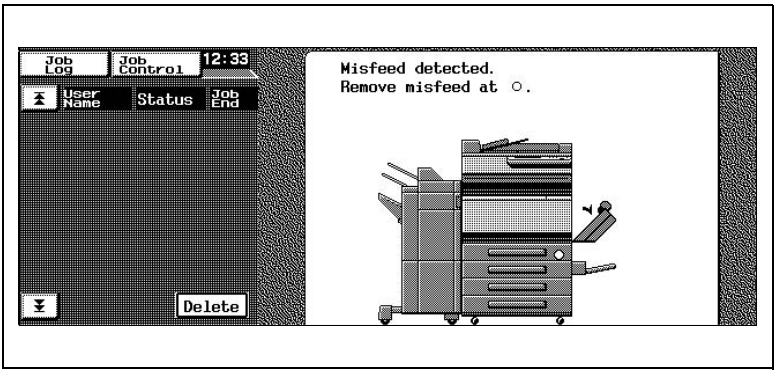
14 Close the front door.



8.4 When the Message “Misfeed detected.” Appears

Locations of Paper Misfeeds

A flashing “O” indicates the location of the paper misfeed. In addition, a lit “O” indicates areas where paper may have been misfed and that should be checked.
(As an example, the following illustration shows a paper jam that occurred in a paper drawer.)

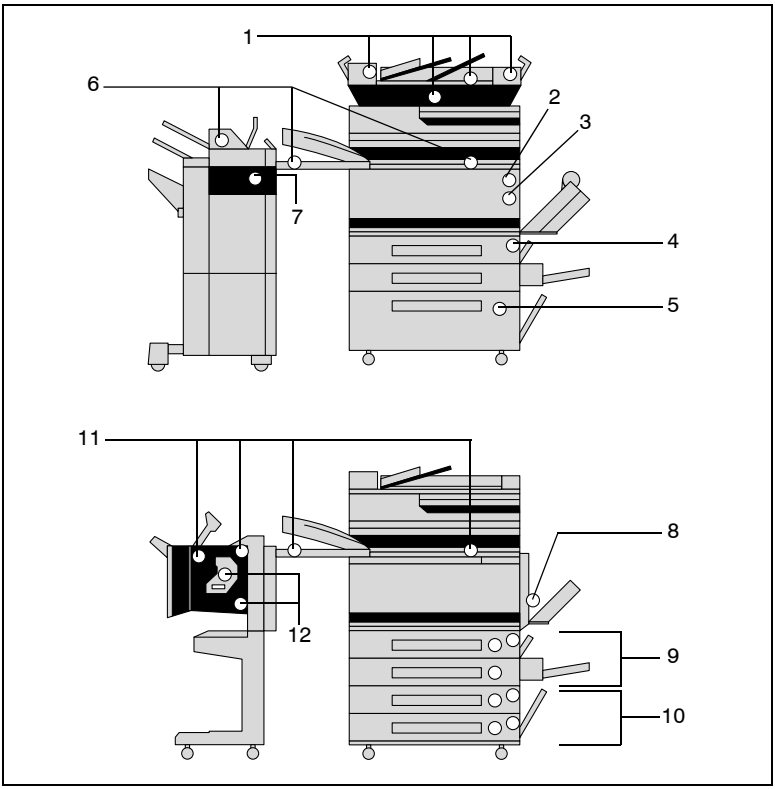


...

Hint

The procedure for clearing misfed paper differs depending on where the misfeed occurs. Determine the misfeed location by looking at the illustration displayed with the error message, and then clear the misfeed according to the appropriate procedure.

Paper Misfeed/Staple Jam Indications



Message	Description	Message	Description
1	A paper misfeed in the reverse automatic document feeder (p. 8-27)	7	A staple jam in the finisher FS-501 (p. 8-38)
2	A paper misfeed in the fusing area (p. 8-24)	8	A paper misfeed in the automatic duplex unit (p. 8-17)
3	A paper misfeed in the right-side door unit/right-side door (p. 8-21)	9	A paper misfeed in the 1st or 2nd drawer (p. 8-18)
4	A paper misfeed in the bypass tray (p. 8-15)	10	A paper misfeed in the 3rd or 4th drawer (p. 8-19)
5	A paper misfeed in the large-capacity paper feed cabinet (p. 8-20)	11	A paper misfeed in finisher FS-601 (p. 8-34)
6	A paper misfeed in finisher FS-501 (job separator) (page 8-30)	12	A staple jam in the finisher FS-601 (p. 8-40)

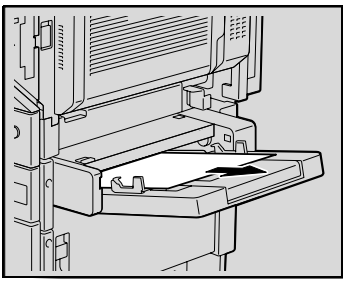
Clearing a Paper Misfeed in the Bypass Tray

...

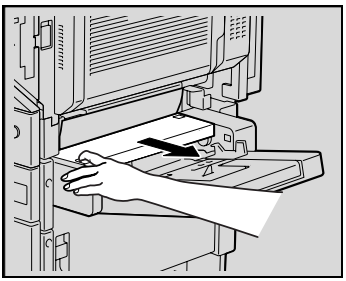
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

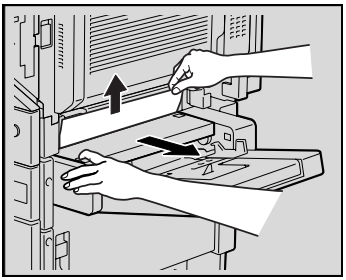
1 Remove all paper from the bypass tray.



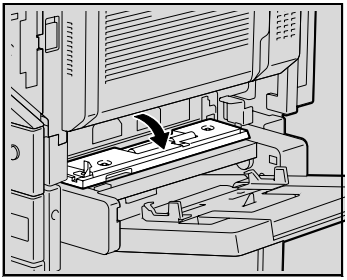
2 If misfed paper cannot be pulled out, pull the lever for the sliding plate of the bypass tray, and then pull the sliding plate toward you.



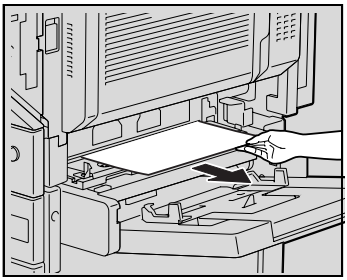
3 Pull the sliding plate toward you, and then carefully pull out any misfed paper.



4 Pull the lever, and then open the right-side door of the 1st drawer.



5 Carefully pull out any misfed paper.



6 Close the right-side door.

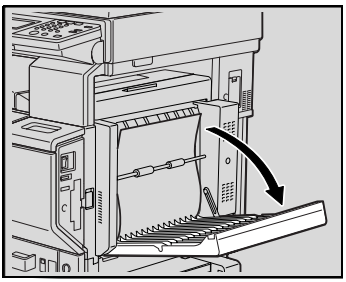
Clearing a Paper Misfeed in the Automatic Duplex Unit

...

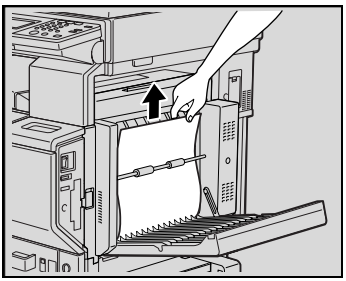
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Open the automatic duplex unit door.



2 Carefully pull out any misfed paper.



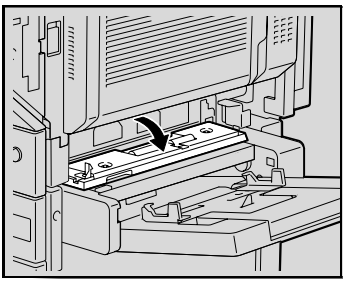
3 Close the automatic duplex unit door.

Clearing a Paper Misfeed in the 1st or 2nd Drawer

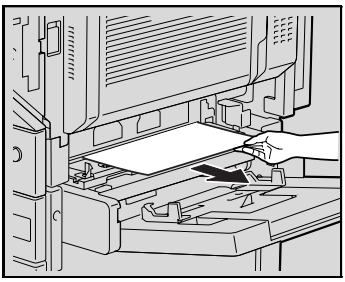
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Pull the lever, and then open the right-side door of the 1st drawer.



2 Carefully pull out any misfed paper.



3 Close the right-side door.

4 Pull out the paper drawer, and then remove any misfed paper.

Reminder!

Be careful not to touch the surface of the paper take-up roller (in the 1st drawer) or the film (in the 2nd drawer) with your hands.

5 Close the paper drawer.

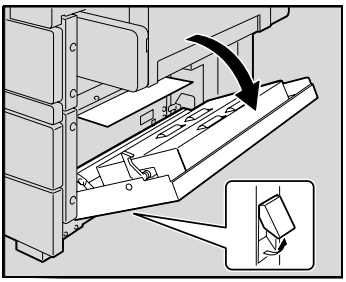
Clearing a Paper Misfeed in a Paper Drawer (3rd or 4th Drawer)

...

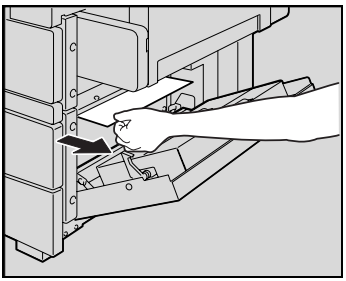
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Pull the lever, and then open the right-side door of the paper drawer (3rd or 4th drawer).



2 Carefully pull out any misfed paper.



3 Close the right-side door.

4 Pull out the paper drawer, and then remove any misfed paper.

...

Reminder!

Be careful not to touch the film.

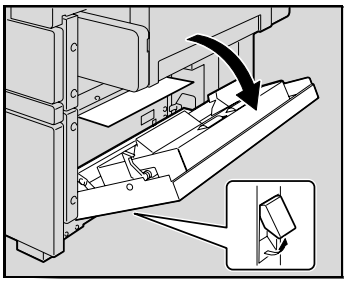
5 Close the paper drawer.

Clearing a Paper Misfeed in the Large-Capacity Paper Feed Cabinet

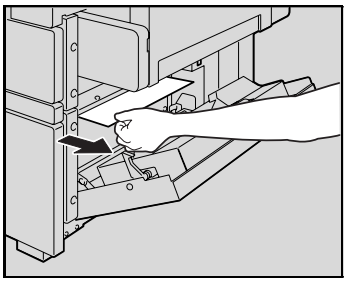
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Pull the lever, and then open the right-side door of the large-capacity paper feed cabinet.



2 Carefully pull out any misfed paper.



3 Close the right-side door of the large-capacity paper feed cabinet.

4 Press the drawer release button, pull out the paper drawer of the large-capacity paper feed cabinet, and then remove any misfed paper.

Reminder!

Be careful not to touch the film.

5 Close the paper drawer of the large-capacity paper feed cabinet.

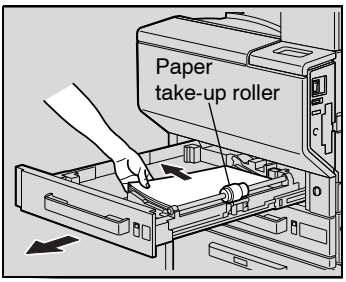
Clearing a Paper Misfeed in the Right-Side Door

...

Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Pull out the paper drawer being used, and then remove any paper remaining in the drawer.



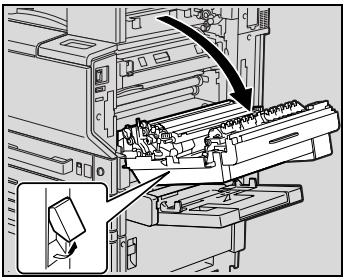
2 Load the paper into the drawer again, and then close the drawer.

...

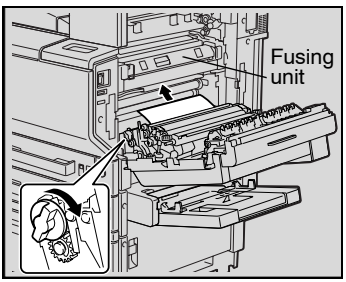
Reminder!

Be careful not to touch the surface of the paper take-up roller (in the 1st drawer) or the film (in the 2nd, 3rd and 4th drawers and in the large-capacity paper feed cabinet) with your hands.

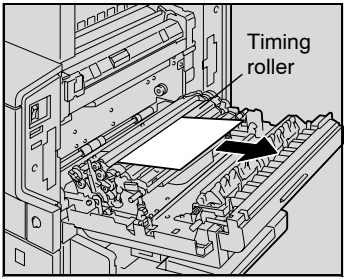
3 Pull up the right-side door release lever, and then open the right-side door.



4 Turn the knob M1 on the inside of the right-side door clockwise to feed out the paper.



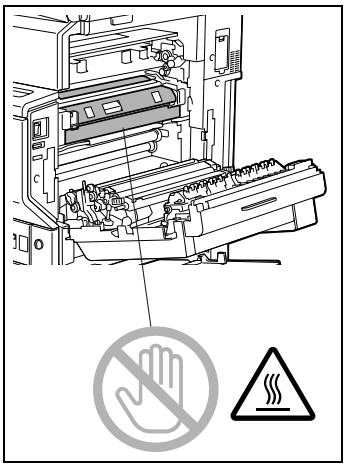
5 Pull out any paper caught in the timing roller section.



CAUTION

The area around the fusing unit is extremely hot.

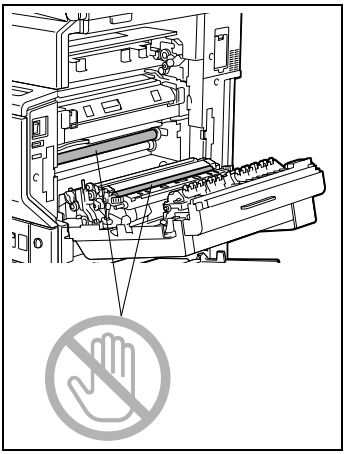
➔Touching anything other than the indicated levers and dials may result in burns. If you get burnt, immediately cool the skin under cold water, and then seek professional medical attention.



CAUTION

Decreased copy quality may result if the surface of the image transfer belt or the image transfer roller is touched.

➔Be careful not to touch the surface of the image transfer belt or the image transfer roller.



Reminder!

If the paper is misfed as described below, contact your service representative.

The paper is wrapped around the timing roller.
The paper is folded or shredded by the timing roller.

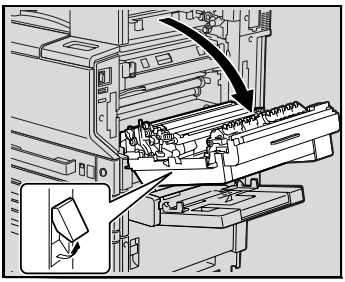
Clearing a Paper Misfeed in the Fusing Unit

...

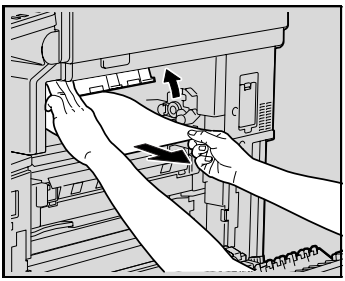
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Pull up the right-side door release lever, and then open the right-side door.

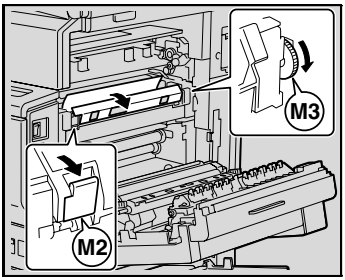


2 Lift up the inside cover M4, and the pull out any misfed paper.

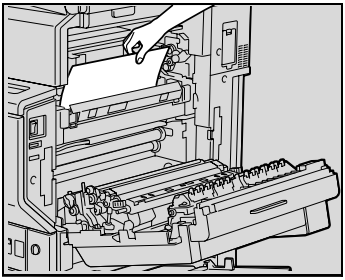


3 Pull tab M2 down toward you.

4 Turn dial M3 to feed out the paper.



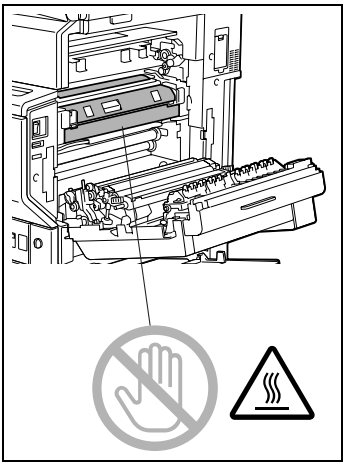
5 Pull out any paper caught in the fusing unit.



CAUTION

The area around the fusing unit is extremely hot.

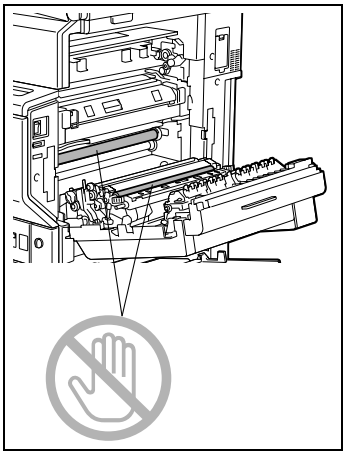
➔Touching any part other than those indicated may result in burns. If you get burnt, immediately cool the skin under cold water, and then seek professional medical attention.



CAUTION

Decreased copy quality may result if the surface of the image transfer belt or the image transfer roller is touched.

➔Be careful not to touch the surface of the image transfer belt or the image transfer roller.



6 Close the right-side door.

Reminder!

If the paper is misfed as described below, contact your service representative.

The paper is wrapped around the roller in the fusing unit.
The paper is folded or shredded by the roller in the fusing unit.
The paper that was removed tore and remains in the fusing unit.

Clearing a Paper Misfeed in the Reverse Automatic Document Feeder

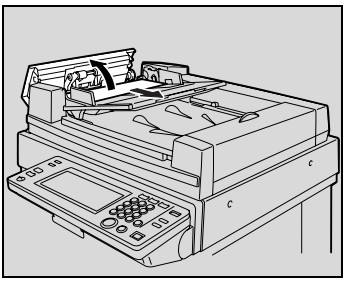
...

Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Open the misfeed-clearing cover on the left side of the reverse automatic document feeder.

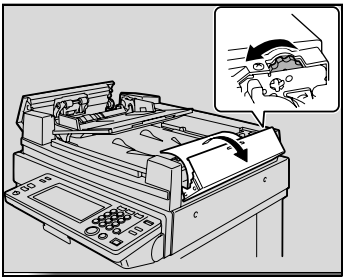
2 Carefully pull out any documents from the document feed tray.



3 Open the misfeed-clearing cover on the right side of the reverse automatic document feeder.

4 Turn the dial counterclockwise to feed out any misfed documents.

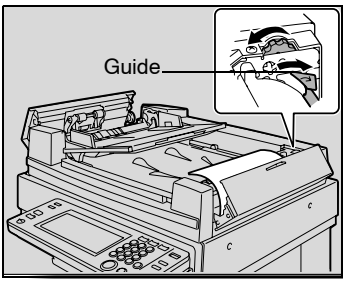
5 Carefully pull out any misfed documents.



6 Open the guide.

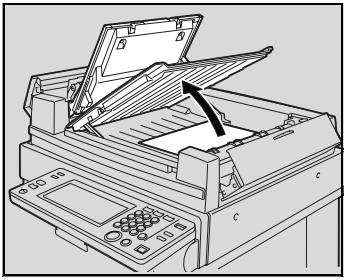
7 Turn the dial to feed out any misfed documents.

8 Carefully pull out any misfed documents.



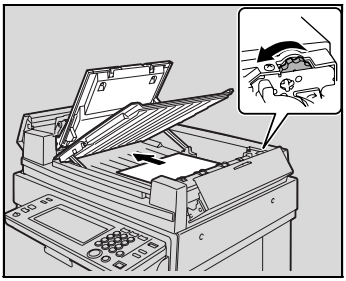
9 Carefully open the document output tray as far as possible.

- ❍ Check that the tray remains secured with the guide open.

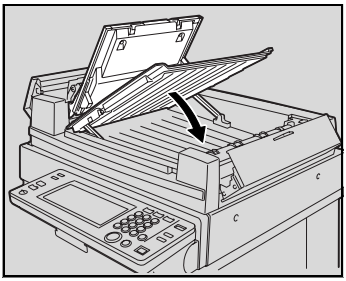


10 Turn the dial to feed out any misfed documents.

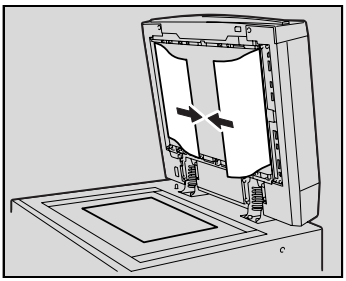
11 Carefully pull out any misfed documents.



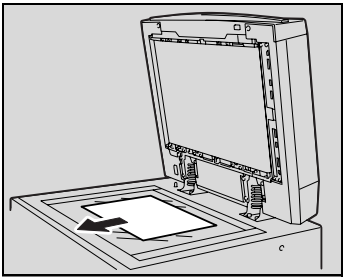
12 Lower the document output tray.



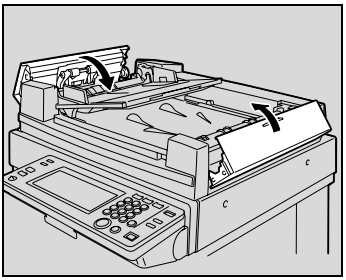
13 Open the reverse automatic document feeder, and then carefully pull out any misfed documents.



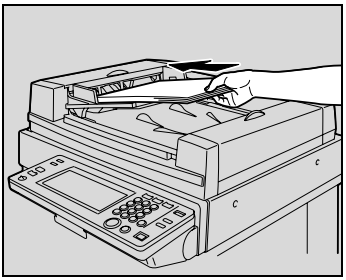
14 Remove any documents on the original glass, and then close the reverse automatic document feeder.



15 Close the left-side and right-side misfeed-clearing covers.



16 Reload the documents according to the instructions that appear on the touch panel.



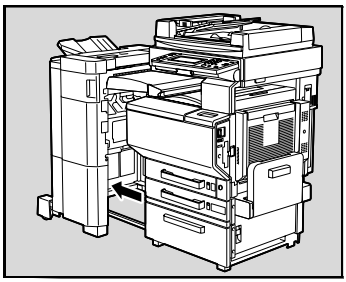
Clearing a Paper Misfeed in Finisher FS-501

...

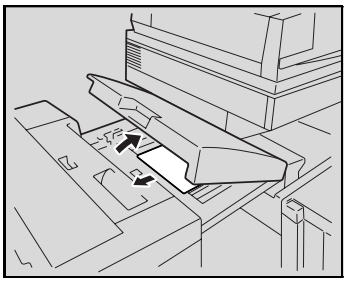
Reference

For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

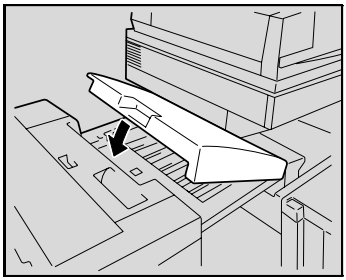
1 Slide the finisher away from the machine.



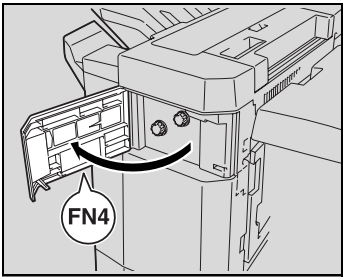
2 Open the horizontal transport unit cover, and then remove any misfed paper.



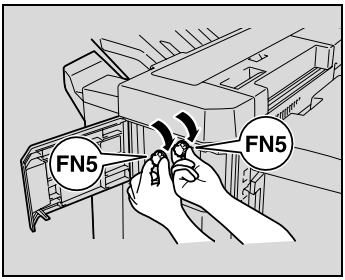
3 Close the horizontal transport unit cover.



4 Open front door FN4.



5 Turn knobs FN5 clockwise at the same time.



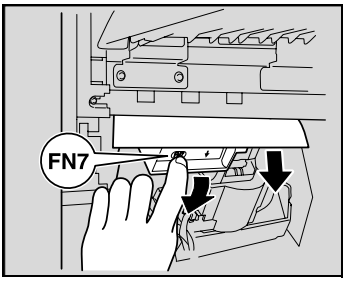
...

Hint

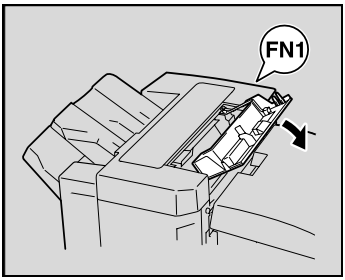
If the paper can be seen from the paper output tray, turn knobs FN5 counterclockwise at the same time to feed out any misfed paper.

6 Close front door FN4.

7 While holding misfeed-clearing guide FN7 open, pull out any misfed paper.



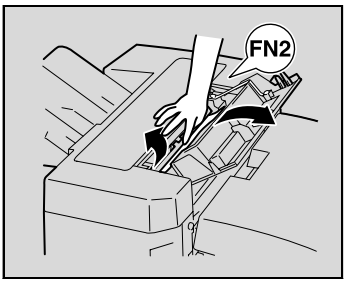
8 Open upper cover FN1.



CAUTION

Metallic parts on the inside of the upper cover are very hot.
➔Touching any part other than the paper may result in burns.

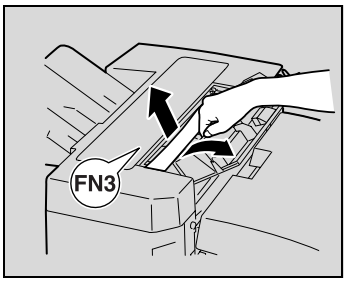
9 While holding misfeed-clearing guide FN2 open, pull out any misfed paper.



10 While holding misfeed-clearing guide FN3 open, pull out any misfed paper.

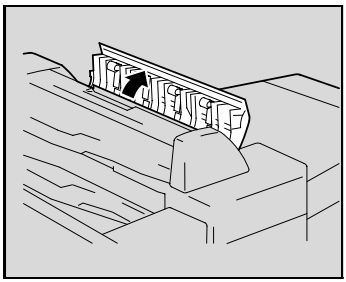
11 Close upper cover FN1.

- If the job separator is not installed, skip to step 15.

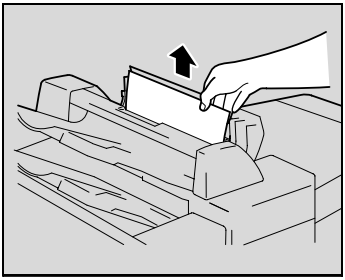


12 If the job separator is installed:

Open the job separator.

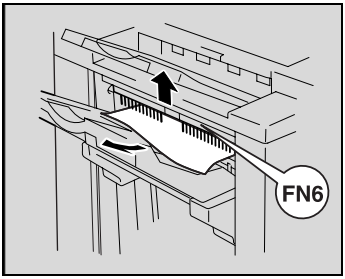


13 Remove any misfed paper.



14 Close the job separator.

15 While holding misfeed-clearing guide FN6 open, pull out any misfed paper.



16 Slide the finisher back against the machine.

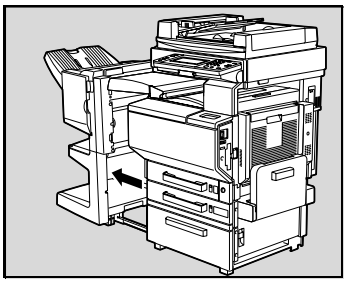
Clearing a Paper Misfeed in Finisher FS-601

...

Reference

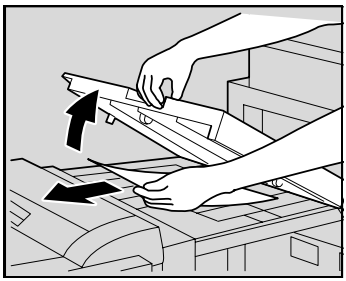
For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

1 Slide the finisher away from the machine.

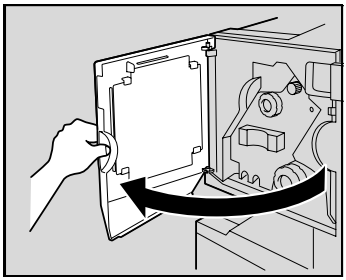


2 Open the horizontal transport unit cover.

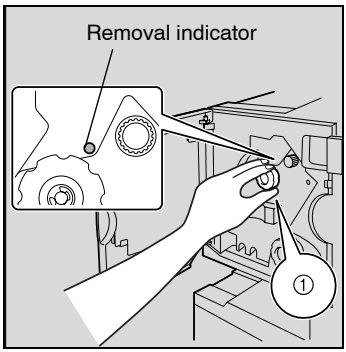
3 Remove any misfed paper, and then close the cover of the horizontal transport unit.



4 Open the front door of the finisher.



5 Turn misfeed-clearing dial ¿ clockwise until the removal indicator is completely blue.



...

Hint

If the dial is turned too far, turn it counterclockwise to adjust it.

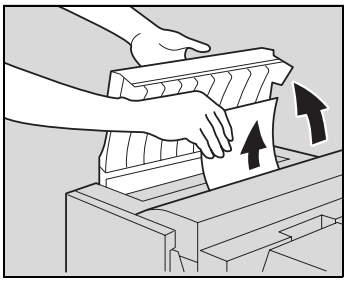
...

Reminder!

If the message "Misfeed detected." appears, be sure to perform these steps.

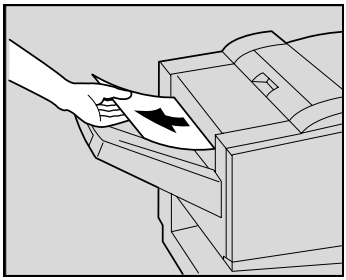
If the paper is pulled out with too much force without performing these steps, the finisher may be damaged.

6 Open the upper door of the finisher, and then pull out any paper in the feed section.

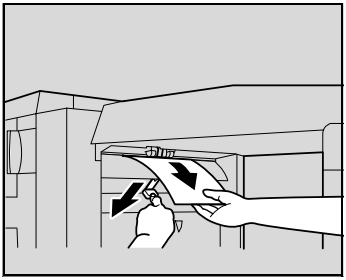


7 Close the upper door.

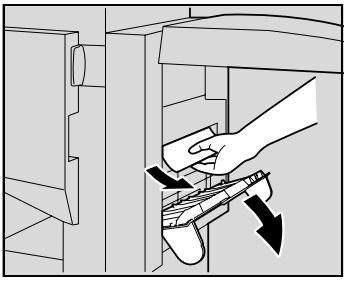
8 Remove all paper fed into the paper output tray.



9 Open the feed guide for the finisher, and then remove any misfed paper.



10 Open the transport guide, and then pull out any misfed paper in the transport section.



...

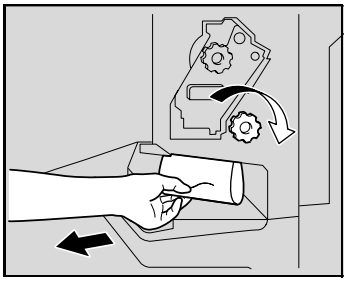
Reminder!

If the paper cannot easily be pulled out, stop trying to pull it out, and continue with to step 11.

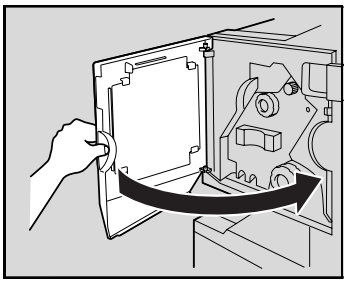
Pulling out the paper with too much force may damage the folding unit.

11 If the paper could not be removed in step 10, turn the misfeed-clearing dial in the folding section clockwise.

Feed the paper into the lower paper output tray, and then pull it out.



12 Close the front door of the finisher.



...

Reminder!

Be careful that your fingers are not pinched when the front door is closed.

13 Slide the finisher back against the machine.

8.5 When the Message “Staple mode cannot be used.” Appears

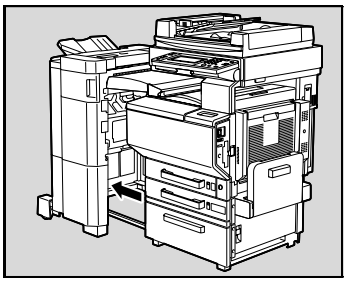
Clearing Jammed Staples in Finisher FS-501

...

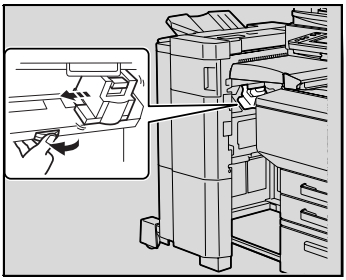
Reference

For details on the positions of paper misfeeds, refer to “Paper Misfeed/ Staple Jam Indications” on page 8-14.

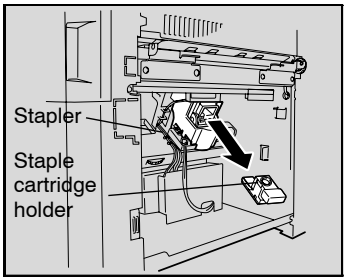
1 Slide the finisher away from the machine.



2 Turn the dial to the left in order to position the stapler at the center.

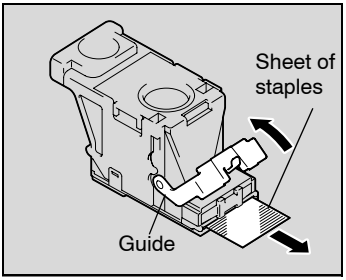


3 Pull the staple cartridge holder out toward you.

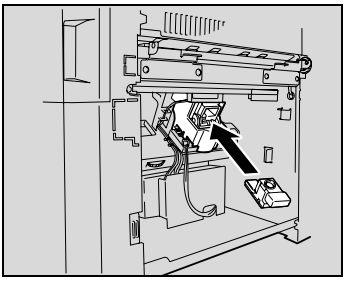


4 Push the staple holder guide up, and then pull out one sheet of staples.

5 Return the guide to its original position.



6 Insert the staple cartridge holder until it locks into place.



7 Slide the finisher back against the machine.

...

Reminder!

If stapling still cannot be performed, even after performing the above procedure, contact your service representative.

Clearing Jammed Staples in Finisher FS-601

Reference

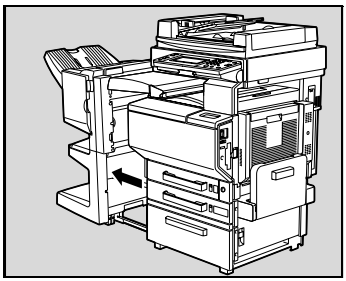
For details on the positions of paper misfeeds, refer to "Paper Misfeed/ Staple Jam Indications" on page 8-14.

Reminder!

If the message "Staple mode cannot be used." appears, be sure to perform the following procedure.

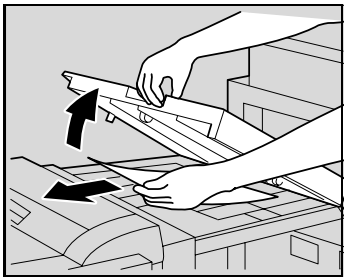
If the following procedure is not followed and the paper is pulled out with too much force, the stapler unit may be damaged.

1 Slide the finisher away from the machine.

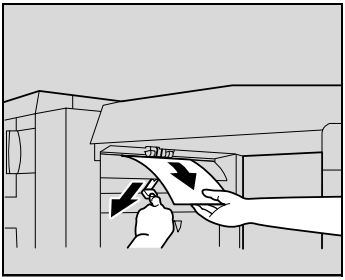


2 Open the horizontal transport unit cover.

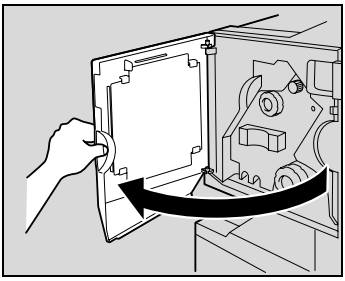
3 Remove any misfed paper, and then close the cover of the horizontal transport unit.



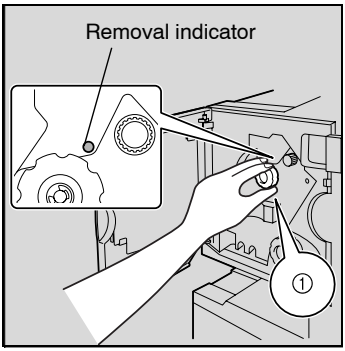
4 Open the feed guide for the finisher, and then remove any misfed paper.



5 Open the front door of the finisher.



6 Turn misfeed-clearing dial ¿ clockwise until the removal indicator is completely blue.



...

Hint

If the dial is turned too far, turn it counterclockwise to adjust it.

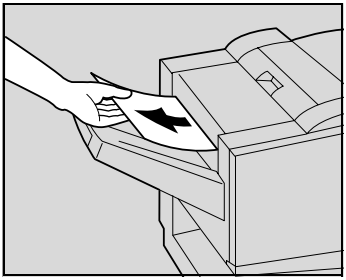
...

Reminder!

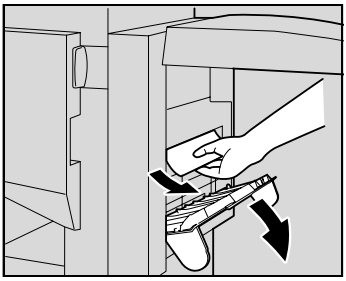
If the message "Staple mode cannot be used." appears, be sure to perform these steps.

If the paper is pulled out with too much force without performing these steps, the finisher may be damaged.

7 Remove all paper fed into the paper output tray.



8 Open the transport guide, and then pull out any misfed paper in the transport section.



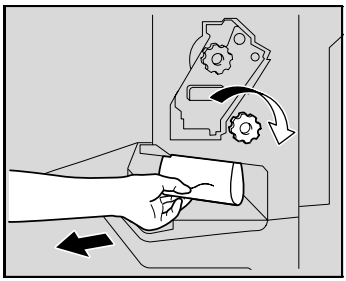
...

Reminder!

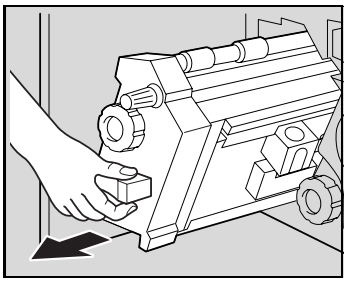
If the paper cannot easily be pulled out, stop trying to pull it out, and continue with to step 9.

Pulling out the paper with too much force may damage the folding unit.

9 Clockwise turn the misfeed-clearing dial in the folding section. Feed out into the lower output tray the paper that could not be fed out in step 8, and then pull out the paper.

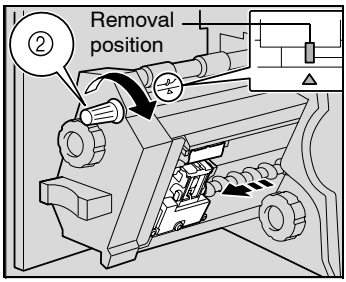


10 Slowly pull out the stapler unit as far as possible.



11 Turn misfeed-clearing dial ¡ clockwise until the cartridge removal indicators are aligned.

The staple cartridge moves to a position from where it can be removed.

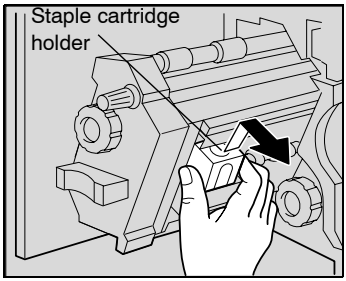


...

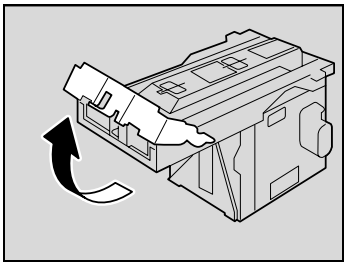
Hint

If the dial is turned too far, turn it counterclockwise to adjust it so the cartridge removal indicators are aligned.

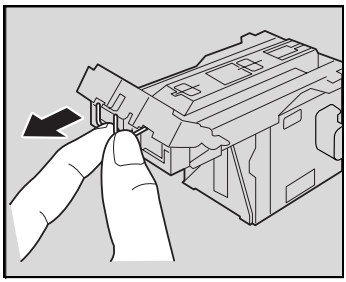
12 Grasp both sides of the staple cartridge holder, lift it up, and then pull it out.



13 Swing open the shutter of the staple cartridge.



14 Pull out toward you the two staples jammed at the end of the staple cartridge.



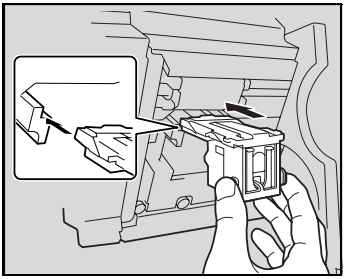
...

Reminder!

Be sure to remove two staples, otherwise stapling cannot continue correctly.

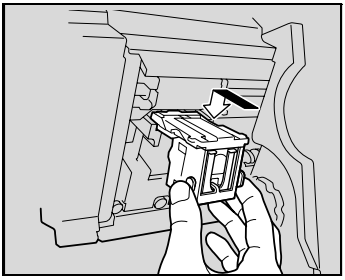
15 Return the shutter of the staple cartridge to its original position.

16 Insert the staple cartridge holder, making sure the tabs on the holder slide along the rails in the compartment.



17 Insert the staple cartridge holder until it locks into place.

- Check that the staple cartridge holder is securely installed.



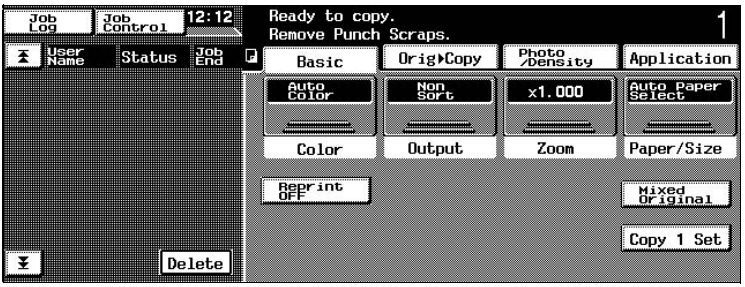
18 Carefully move the stapler unit back into its original position.

19 Close the front door.

20 Slide the finisher back against the machine.

8.6 When the Message “Remove Punch Scraps.” Appears

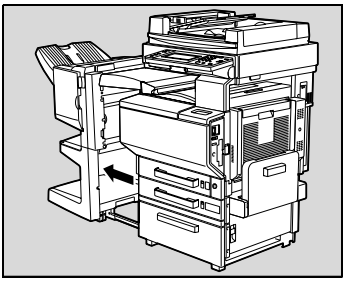
If the punch kit PK-4 is attached to finisher FS-601, the following message will appear when the hole-punch waste container is full (If it can be emptied by the user).



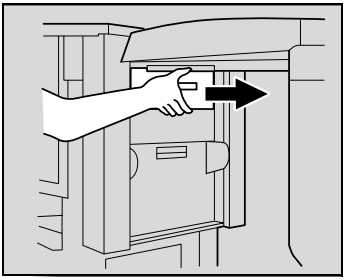
Emptying the Hole-Punch Waste Container

Empty the hole-punch waste container as described below.

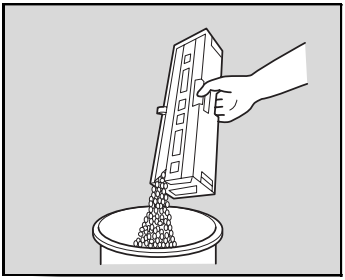
1 Slide the finisher away from the machine.



2 Pull out the hole-punch waste container.



3 Empty the hole-punch waste container.



4 Insert the hole-punch waste container into its original position.

5 Slide the finisher back against the machine.

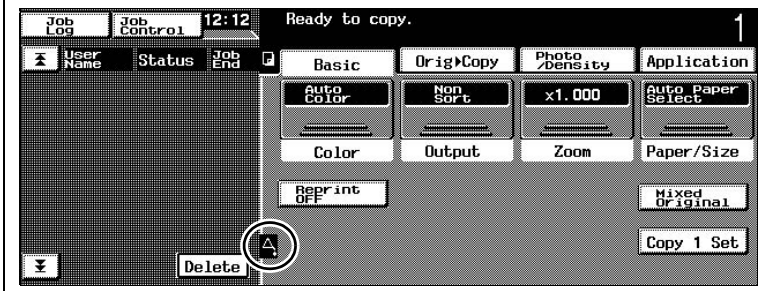
8.7 When the Inspection Mark " " Appears

When the inspection mark ( ) appears in the lower-left corner of the Basic screen, the image stabilization or printing or scanning functions have become unstable.

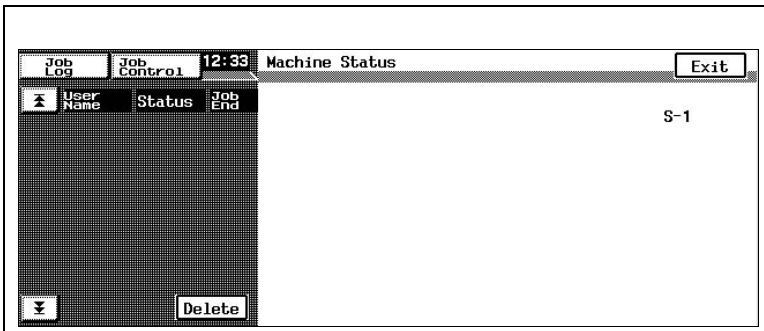
...

Reminder!

If appears in the display, contact your service representative. When contacting the service representative, inform them of the numbers ("S-1" for the example shown above) listed in the screen that appears.

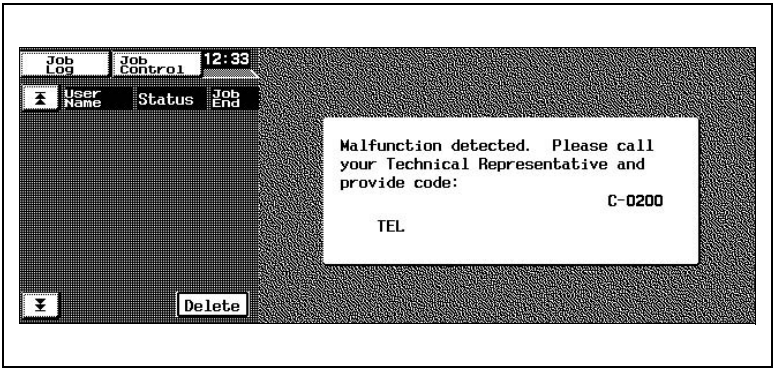


Touching the inspection mark ( ) that appears in the Basic screen displays a screen like that shown below.



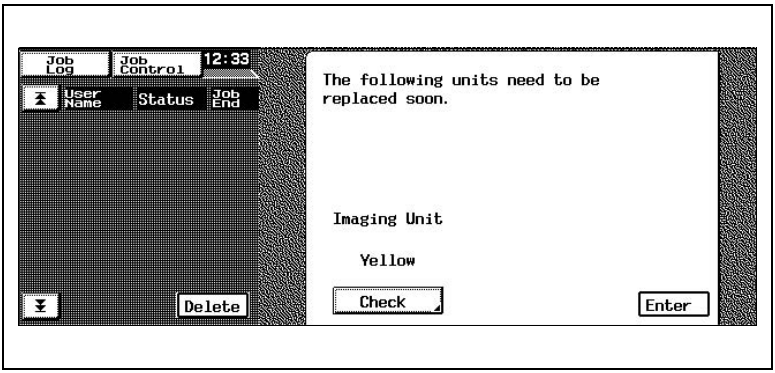
8.8 When the Message “Malfunction detected.” Appears

When the message shown below appears in the touch panel, a malfunction has occurred within this machine.



8.9 When “The following units need to be replaced soon.” Appears

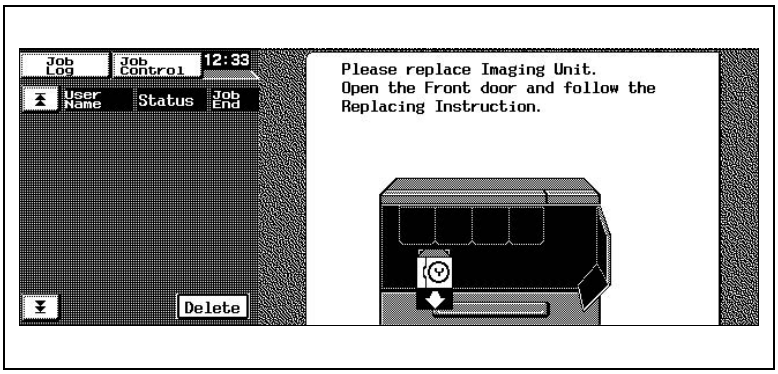
When it is almost time to replace supplies or a part within this machine, the message shown in the following illustration appears, warning about the replacement period.
(As an example, the message warning that the yellow imaging unit will soon need to be replaced is shown below.)



8.10 When the Message “Please replace XXXX.” Appears

When it is time to replace supplies or a part within this machine, a message appears, indicating that the part or supplies should be replaced, and the machine stops operating.

As an example, the message indicating that the yellow imaging unit should be replaced (when replaceable by the user) is shown below.



8.11 Main Messages and Their Remedies

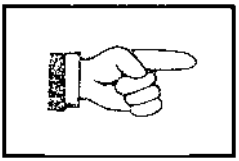
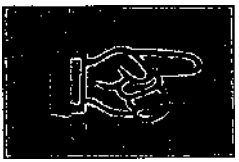
Message	Cause	Remedy
Original left on Glass.	The document was left on the original glass.	Remove the document from the original glass.
Matching paper size is not available. Reselect the paper size.	Paper of a suitable size is not loaded in a paper drawer.	Either select a different copy size or manually feed paper of a suitable size.
Original size cannot be detected. Reselect the paper size.	① The document is not positioned correctly. ② A document with a non-standard size or with a size too small to be detected is loaded.	① Position the document correctly. ② Select the correct paper size.
This mode cannot be set with the XXXXXX.	Functions that cannot be used together are selected.	Make copies using only one of the functions.
The Exit Tray has reached its capacity.	Since the maximum amount of copies for the indicated finisher output tray has been exceeded, the machine is unable to make copies.	Remove all copies from the indicated tray.
Input Volume Number and Access Number using the numerical Key Pad	Access number have been specified. Copies cannot be made unless an Volume number and its correct access number are entered.	Enter your Volume number and access number.
Your account has reached its maximum allowance.	The limit on the number of copies that can be made has been reached.	Contact your administrator.
Close -> Section properly.	Since a machine door or cover is open or an option is not installed correctly, the machine is unable to make copies.	Make sure that all doors and covers are closed and that all options are installed correctly.
Please insert the Fusing Unit and close all doors.	The fusing unit is not installed correctly.	Reinstall the supplies or parts, or contact your service representative.
Install the toner cartridge, and then move the lever to the correct position.	The indicated toner cartridge is not installed correctly.	
Please insert the Waste Toner Bottle and close all doors.	The waste-toner bottle is not installed correctly.	
Please insert the Image Transfer Belt Unit and close all doors.	The image transfer belt unit is not installed correctly.	
Replenish paper.	The indicated drawer has ran out of paper.	Load paper into the indicated drawer. (See the corresponding sections in *"Before Making Copies" on page 3-1*.)

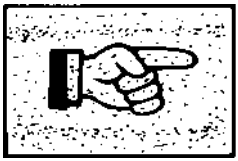
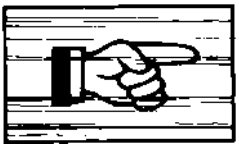
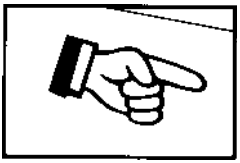
Message	Cause	Remedy
Toner cartridge (X) needs to be replaced soon.	The toner for the indicated color is about to run out.	Prepare to replace the toner cartridge according to your maintenance agreement.
Replace the Toner cartridge.	Since the toner for the indicated color has run out, the machine is unable to make copies.	Replace the toner cartridge according to your maintenance agreement.
Replace Staple Cartridge.	The staples have run out.	Replace the staple cartridge. (See *"When the Message "Replace Staple Cartridge." Appears" on page 8-6*)
Misfeed detected.	Since a paper misfeed occurred, the machine is unable to make copies.	Clear the paper misfeed. (See *"When the Message "Misfeed detected." Appears" on page 8-13*)
Re-insert the following# of originals:	After clearing a paper misfeed, it is necessary to reload certain pages of the document that have already been fed through the reverse automatic document feeder.	Load the indicated document pages into the reverse automatic document feeder.
Malfunction detected. Please call your Technical Representative and provide code:	The machine malfunctioned and is unable to make copies.	Inform your service representative of the code displayed on the touch panel.

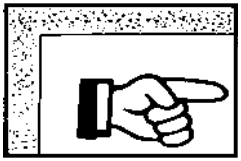
If any message other than those listed above appears, perform the operation described in the message.

9 Troubleshooting

9.1 When the Print Quality Is Low

Symptom	Possible Cause	Remedy
The printed output is too light. 	The copy density is set too light.	Select a darker Density setting. (See page 4-31.)
	The paper is damp.	Replace the paper. (See page 3-23, page 3-28, page 3-30, page 3-32.)
The printed output is too dark. 	The copy density is set too dark.	Select a lighter Density setting. (See page 4-31.)
	The document was not pressed close enough against the original glass.	Position the document so that it is pressed closely against the original glass. (See page 3-40.)
The printed output is blurry.	The paper is damp.	Replace the paper. (See page 3-23, page 3-28, page 3-30, page 3-32.)
	The document was not pressed close enough against the original glass.	Position the document so that it is pressed closely against the original glass. (See page 3-40.)

Symptom	Possible Cause	Remedy
There are dark specks or spots throughout the printed output. 	The original glass is dirty.	Wipe the glass with a soft, dry cloth.
	Either the document pad or the document transfer belt is dirty.	Clean the document pad or the document transfer belt with a soft cloth dampened with a mild detergent.
There are streaks in the printed output. 	The original document is printed on highly translucent material, such as diazo photosensitive paper or overhead projector transparencies.	Place a blank sheet of paper on top of the document. (See page 3-40)
	A double-sided document is being copied.	If a thin double-sided document is being copied, the information on the back side may be reproduced in the copy. Touch [Density], and then select a lighter Background setting for the “Density” parameter. (See page 4-31)
	The electrostatic charger is dirty.	Use the charger-cleaning tool to clean the electrostatic charger.
The image is not aligned properly on the paper. 	The document is not positioned correctly.	Correctly position the document against the document width scales. (See page 3-40) If the reverse automatic document feeder is installed, correctly adjust the document guides for the size of the document. (See page 3-37)
	The document is not positioned correctly in the reverse automatic document feeder.	If the document cannot be fed correctly through the reverse automatic document feeder, make copies by positioning the document on the original glass. (See page 3-40)
	The original glass is dirty (while using the reverse automatic document feeder).	Wipe the glass with a soft, dry cloth.
	The document guides are not slid up against the edges of the document.	Slide the document guides against the edges of the document.
	Curled paper was loaded into the paper drawer.	Flatten the paper before loading it.

Symptom	Possible Cause	Remedy
The printed page is curled.	The paper that was used (as with recycled paper) curls easily.	Remove the paper from the paper drawer, turn it over, and then load it again.
		Replace the paper with paper that is not damp.
The edge of the printed output is dirty. 	Either the document pad or the document transfer belt is dirty.	Clean the document pad or the document transfer belt with a soft cloth dampened with a mild detergent.
	The selected paper size is larger than the document (with a Zoom setting of "×1.000").	Select a paper size that is the same size as the document. (See page 4-9) Otherwise, select the "Auto Zoom" setting to enlarge the copy to the selected paper size. (See page 4-8)
	The orientation of the document is different from the orientation of the paper (with a Zoom setting of "×1.000").	Select a paper size that is the same size as the document. Otherwise, select a paper orientation that is the same as that of the document.
	The copy was reduced to a size smaller than the paper (a reduced zoom ratio was selected).	Select a zoom ratio that adjusts the document size to the selected paper size. (See page 4-8) Otherwise, select the "Auto Zoom" setting to reduce the copy to the selected paper size. (See page 4-8)

9.2 When the Machine Is Not Operating Correctly

Symptom	Possible Cause	Remedy
Nothing appears in the touch panel.	The indicators on the [Start] key and [Power Save] key light up in green.	The machine is in Power Save mode. Press any key in the control panel to cancel Power Save mode. (See page 3-18)
	The contrast-adjusting dial for the touch panel has been set either too light or too dark.	While looking at the touch panel, adjust the contrast dial. (See page 3-12)
The indicator on the [Start] key does not light up in green.	An access number has not been entered.	Enter the access number.
Even though the [Start] key is pressed, no copies are made.	The copy/print job is queued and waiting to be printed.	Touch [Job Log] to check the jobs that are queued. Wait until printing begins.
	The machine is still warming up after just being turned on.	The machine takes 99 seconds to warm up after it is turned on. Wait until the machine has finished warming up.
	The machine is malfunctioning.	Follow any messages that appear on the touch panel.
The machine cannot be set to Copy mode.	If the indicator on the [Interrupt] key is lit, the machine is in Interrupt mode.	Specify the copy settings for the job that copying is interrupted for. Press the [Interrupt] key to cancel Interrupt mode.
The machine cannot be turned on.	The power supply cord has been unplugged from the electrical outlet.	Plug the power supply cord into the electrical outlet.
	The breaker for the electrical circuit has been tripped.	Close the breaker for the electrical circuit.

10 Specifications

10.1 Specifications

Copier MF22

Specifications	
Type	Desktop scanner/printer
Platen	Stationary
Photoconductor	OPC
Copying system	Dry-type electrophotographic method
Developing system	HMT developing method
Fusing system	Belt-fixing
Resolution	Scanning: 600 dpi; Printing: 600 dpi × 1800 dpi equivalent
Document	Types: Sheets, books, and other three-dimensional objects Size: Maximum A3; Weight: 2 kg
Paper types	Plain paper (60 to 90 g/m^2), thick paper 1* (91 to 150 g/m^2), thick paper 2* (151 to 209 g/m^2), thick paper 3* (210 to 256 g/m^2), overhead projector transparencies*, postcards*, envelopes*, label sheets* *Can only be fed through the 1st drawer or the bypass tray.
Paper sizes	1st drawer: A3 Wide to B6 L, A6 L (Width: 90 to 311 mm; Length: 140 to 457 mm) 2nd drawer: A3 L to A5 L Multiple bypass tray: A3 Wide to B6 L, A6 L (Width: 90 to 311 mm; Length: 140 to 457 mm)
Paper capacity	1st drawer: 250 sheets (plain paper), 20 sheets (thick paper 1, thick paper 2, thick paper 3, overhead projector transparencies, postcards, envelopes, or label sheets) 2nd drawer: 500 sheets (plain paper) Bypass tray 150 sheets (plain paper), 20 sheets (thick paper 1, thick paper 2, thick paper 3, overhead projector transparencies, postcards, or label sheets), 10 sheets (envelopes)
Warm-up time	Less than 99 seconds at room temperature (23°C)
Image loss	Leading edge: 5 mm; Trailing edge: 3 mm; Rear edge: 3 mm; Front edge: 3 mm
First-page print time	Full color: Less than 12.8 seconds Black: Less than 6.8 seconds (for A4 C paper loaded into the 1st drawer)

Specifications	
Copy speed	Full color/black: (using the 1st drawer) 22/35 sheets (A4 C), 11/18 sheets (A3 L), 13/21 sheets (B4 L)
Magnification ratios	Full size: ×1.000 Enlargement ratios: ×1.154, ×1.224, ×1.414 and ×2.000 Reduction ratios: ×0.866, ×0.816, ×0.707, ×0.500, and minimal (×0.930) Zoom ratios: ×0.250 to ×4.000 (in ×0.001 increments), and 3 memory zoom ratios
Multiple copies	1 to 999 sheets
Density control	Copy density: Manual Background density: Automatic and manual
Power requirements	220-240 V, 240 V: 6.7 A or less, 50 Hz
Power consumption	Less than 1,550 W
Dimensions	903 mm (width) × 730 mm (depth) × 770 mm (height)
Space requirements	1,014 mm (width) × 1,151 mm (depth)
Memory	256 MB (Can be increased to a maximum of 512 MB)
Weight	100 kg (without the imaging units and original cover installed)

Automatic Duplex Unit AD-501

Specifications	
Paper types	Plain paper (64 to 90 g/m^2)
Paper sizes	A3 Wide to A5 L
Power requirements	Supplied from main unit
Power consumption	Less than 17 W
Dimensions	110 mm (width) × 440 mm (depth) × 345 mm (height)
Weight	2.9 kg

Reverse Automatic Document Feeder DF-601

Specifications	
Document feed methods	Plain paper: Single-sided and double-sided documents Thick paper: Single-sided documents (129 to 210 g/m^2) "Mixed Original" function: Single-sided and double-sided documents
Document paper type	Single-sided: Plain paper (35 to 128 g/m^2) Double-sided or mixed: Plain paper (50 to 110 g/m^2)
Document paper size	Single-sided/double-sided documents: A3 L to B6 L, 11 × 15, Foolscap Mixed document sizes: Refer to Table 1
Capacity of document feeder	Single-sided/double-sided documents: Less than 100 sheets (80 g/m^2) Thick original: Less than 38 sheets (210 g/m^2) Mixed document sizes: Less than 100 sheets (80 g/m^2)
Power requirements	Supplied from main unit
Power consumption	Less than 60 W
Dimensions	586 mm (width) × 519 mm (depth) × 135 mm (height)
Weight	14.2 kg

Table 1: Possible combinations for mixed document paper sizes

Maximum Document Width / Document Size	A3 L	A4 C	B4 L	B5 C	A4 L	A5 C	B5 L	A5 L
A3 L	○	○	—	—	—	—	—	—
A4 C	○	○	—	—	—	—	—	—
B4 L	○	○	○	○	—	—	—	—
B5 C	○	○	○	○	—	—	—	—
A4 L	○	○	○	○	○	○	—	—
A5 C	—	—	○	○	○	○	—	—
B5 L	—	—	○	○	○	○	○	—
A5 L	—	—	—	—	—	—	○	○

2: Possible

—: Not possible

Paper Feed Cabinet PC-101

Specifications	
Paper types	Plain paper (60 to 90 g/m^2)
Paper sizes	A3 L to A5 L
Paper capacity	500 sheets (80 g/m^2)
Power requirements	Supplied from main unit
Power consumption	Less than 15 W
Dimensions	570 mm (width) × 548 mm (depth) × 263 mm (height)
Weight	22.0 kg

Paper Feed Cabinet PC-201

Specifications	
Paper types	Plain paper (60 to 90 g/m^2)
Paper sizes	A3 L to A5 L
Paper capacity	500 sheets (80 g/m^2) × 2
Power requirements	Supplied from main unit
Power consumption	Less than 15 W
Dimensions	570 mm (width) × 548 mm (depth) × 263 mm (height)
Weight	25.9 kg

Paper Feed Cabinet PC-401

Specifications	
Paper types	Plain paper (60 to 90 g/m^2)
Paper sizes	A4 C
Paper capacity	2,500 sheets (80 g/m^2)
Power requirements	Supplied from main unit
Power consumption	Less than 45 W
Dimensions	570 mm (width) × 548 mm (depth) × 263 mm (height)
Weight	25.9 kg

Finisher FS-601

Specifications	
Output trays	Paper output tray and lower paper output tray
Settings	Normal functions: “Non sort”, “Sort”, “Sort/Staple” and “Saddle Staple” settings Hole-punch functions: “Non sort/Punch”, “Sort/Punch” and “Sort/Staple/Punch” settings
Paper types	Paper output tray: “Non sort” setting: Plain paper (64 to 90 g/m^2), thick paper 1 (91 to 150 g/m^2), thick paper 2 (151 to 209 g/m^2), thick paper 3 (210 to 256 g/m^2), postcards, envelopes, overhead projector transparencies, label sheets “Sort” and “Sort/Staple” settings: Plain paper (64 to 90 g/m^2) Lower paper output tray: Plain paper (64 to 90 g/m^2)
Paper sizes	Paper output tray: “Non sort” setting: A4 L/C, A3 L, A3 Wide “Sort” setting: A4 L/C, A3 L “Sort/Staple” setting: A4 L/C, A3 L “Punch” setting: A4 C, A3 L Lower paper output tray: A4 L, A3 L
Paper capacity	Paper output tray: Plain paper (64 to 90 g/m^2): 1,000 sheets of A4 L-size paper or smaller, or 500 sheets of B4 L-size paper or larger Thick paper 1/2/3 (91 to 256 g/m^2), Postcards, envelopes, overhead projector transparencies, label sheets: 20 sheets Lower paper output tray: 10 copies (6 to 10 bound pages) 20 copies (2 to 5 bound pages)
“Staple” setting	Paper output tray: Paper sizes (no. of bound pages): A4 L/C (2 to 50 sheets), A3 L (2 to 25 sheets) Lower paper output tray: Paper size (no. of bound pages): A4 L, A3 L(2 to 10 sheets)
“Punch” setting	Paper sizes: A4 C, A3 L Number of punched holes: 4
Power requirements	Supplied from main unit (Punch kit: supplied from finisher)
Power consumption	Less than 65 W
Dimensions	601 mm (width) × 603 mm (depth) × 933 mm (height)
Weight	41.6 kg (including the horizontal transport unit)
Consumables	1 staple cartridge (5,000 staples for stapling 50 sheets)

Finisher FS-501

Specifications	
Output trays	Primary paper output tray (non sorted copies), Secondary paper output tray (sorted copies)
Settings	“Non sort”, “Sort”, “Group” and “Staple” settings
Paper types	Primary paper output tray: “Non sort” setting: Plain paper (60 to 90 g/m^2), thick paper 1 (91 to 150 g/m^2), thick paper 2 (151 to 209 g/m^2), thick paper 3 (210 to 256 g/m^2), overhead projector transparencies, postcards, envelopes, label sheets Secondary paper output tray: “Sort”/“Group” settings: Plain paper (60 to 90 g/m^2) “Staple” setting: Plain paper (60 to 90 g/m^2)
Paper sizes	Primary paper output tray: A4 L/C, A3 L, A3 Wide Secondary paper output tray: A4 L/C, A3 L, A3 Wide
Paper capacity	Primary paper output tray: Plain paper (60 to 90 g/m^2): 250 sheets Thick paper 1/2/3 (91 to 256 g/m^2) Overhead projector transparencies, envelopes, label sheets and postcards: 20 sheets Secondary paper output tray: Plain paper (80 g/m^2): 1,000 sheets of A4 L-size paper or smaller, or 500 sheets of A3 L-size paper or larger
“Staple” setting	Paper sizes (no. of bound pages): A4 L/C, A3 L (2 to 30 sheets)
Power requirements	Supplied from main unit
Power consumption	Less than 63 W
Dimensions	538 mm (width) × 637 mm (depth) × 978 mm (height)
Weight	38.1 kg (including the horizontal transport unit)
Consumables	1 staple cartridge (3,000 staples for stapling 30 sheets)

Job Separator JS-601

Specifications	
Output tray	Job separator
Paper types	Plain paper (60 to 90 g/m^2)
Paper sizes	A4 L/C, A3 L
Paper capacity	A4 C: 100 sheets; Other than A4 C: 50 sheets
Dimensions	341 mm (width) × 527 mm (depth) × 149 mm (height)
Weight	1.75 kg

11 Appendix

11.1 Paper Size and Zoom Ratio Tables

Copy Paper Sizes

Paper Format	Metric Size	English Size
A3 Wide	305 mm × 457 mm	12 × 18
A3	297 mm × 420 mm	11-3/4 × 16-1/2
A4	210 mm × 297 mm	8-1/4 × 11-3/4
A5	148 mm × 210 mm	5-3/4 × 8-1/4
A6	105 mm × 148 mm	4-1/4 × 5-3/4
B4	257 mm × 364 mm	10 × 14-1/4
B5	182 mm × 257 mm	7-1/4 × 10
B6	128 mm × 182 mm	5 × 7-1/4
Postcard	100 mm × 148 mm	4 × 5-3/4

Paper Format		English Size	Metric Size
Ledger		11 × 17	279 mm × 432 mm
11 × 14		11 × 14	279 mm × 356 mm
Computer		10-1/8 × 14	257 mm × 356 mm
10 × 14		10 × 14	254 mm × 356 mm
9-1/4 × 14		9-1/4 × 14	236 mm × 356 mm
Legal		8-1/2 × 14	216 mm × 356 mm
Foolscap	Government Legal	8-1/2 × 13	216 mm × 330 mm
Foolscap		8 × 13	203 mm × 330 mm
Foolscap		8-2/3 × 13	220 mm × 330 mm
Foolscap	Folio	8-1/4 × 13	210 mm × 330 mm
8-1/4 × 11-3/4		8-1/4 × 11-3/4	210 mm × 301 mm
Letter		8-1/2 × 11	216 mm × 279 mm
Government Letter		8 × 10-1/2	203 mm × 267 mm
Quarto		8 × 10	203 mm × 254 mm
Statement	Invoice	5-1/2 × 8-1/2	140 mm × 216 mm

Zoom Ratios

Metric Sizes		
Document Paper Size	Desired Paper Size	Zoom Ratio
A3 297 mm × 420 mm 11-3/4 × 16-1/2	A4	× 0.707
	A5	× 0.500
	B4	× 0.866
	B5	× 0.610
A4 210 mm × 297 mm 8-1/4 × 11-3/4	A5	× 0.707
	A6	× 0.500
	B5	× 0.866
	B6	× 0.610
	A3	× 1.414
	B4	× 1.224
A5 148 mm × 210 mm 5-3/4 × 8-1/4	A6	× 0.707
	B6	× 0.866
	A4	× 1.414
	A3	× 2.000
	B4	× 1.733
	B5	× 1.224
A6 105 mm × 148 mm 4-1/4 × 5-3/4	A4	× 2.000
	A5	× 1.414
	B5	× 1.733
	B6	× 1.224
B4 257 mm × 364 mm 10 × 14-1/4	A4	× 0.816
	A5	× 0.577
	B5	× 0.707
	B6	× 0.500
	A3	× 1.154
B5 182 mm × 257 mm 7-1/4 × 10	A5	× 0.816
	A6	× 0.577
	B6	× 0.707
	A3	× 1.640
	A4	× 1.154
	B4	× 1.414

Metric Sizes		
B6 128 mm × 182 mm 5 × 7-1/4	A6	× 0.816
	A4	× 1.640
	A5	× 1.154
	B4	× 2.000
	B5	× 1.414

English Sizes		
Document Paper Size	Desired Paper Size	Zoom Ratio
Ledger 11 × 17 279.4 mm × 431.8 mm	11 × 14	× 0.823
	Legal	× 0.722
	Foolscap	× 0.764
	Letter	× 0.647
	Invoice	× 0.500
11 × 15 279.4 mm × 381 mm	11 × 14	× 0.933
	Legal	× 0.772
	Foolscap	× 0.772
	Letter	× 0.733
	Invoice	× 0.500
11 × 14 279.4 mm × 355.6 mm	Legal	× 0.772
	Foolscap	× 0.772
	Letter	× 0.772
	Invoice	× 0.500
Legal 8-1/2 × 14 215.9 mm × 355.6 mm	Foolscap	× 0.928
	Letter	× 0.785
	Invoice	× 0.607
	11 × 17	× 1.214
Foolscap 8-1/2 × 13 215.9 mm × 330.2 mm	Letter	× 0.846
	Invoice	× 0.647
	11 × 17	× 1.294
	11 × 14	× 1.076
Letter 8-1/2 × 11 215.9 mm × 279.4 mm	Invoice	× 0.647
	11 × 17	× 1.294
	11 × 14	× 1.272

English Sizes		
Invoice 5-1/2 × 8-1/2 139.7 mm × 215.9 mm	11 × 17	× 2.000
	11 × 14	× 1.647
	Legal	× 1.545
	Foolscap	× 1.529
	Letter	× 1.294

Zoom ratio = Paper size/Document size

1 inch = 25.4 mm

1 mm = 0.0394 inch

11.2 Index

Numerics

1st drawer 3-23, 4-14
2nd drawer 3-28
3rd drawer 3-28
4th drawer 3-28

A

Automatic duplex unit AD-501 ..... 8-17, 10-2
Average brightness 4-4

B

Basic screen 3-21
Booklet 4-24
Books 3-40
Bypass tray 3-32, 4-12, 4-16, 8-15

C

Cleaning 7-1, 8-45
Clearing a jammed staples in finisher FS-501 8-38
Clearing a jammed staples in finisher FS-601 8-40
Clearing a paper misfeed in a paper drawer 8-18
Clearing a paper misfeed in finisher FS-501 8-30
Clearing a paper misfeed in finisher FS-601 8-34
Clearing a paper misfeed in the automatic duplex unit 8-17
Clearing a paper misfeed in the bypass tray 8-15
Clearing a paper misfeed in the fusing unit 8-24
Clearing a paper misfeed in the paper feed cabinet 8-20
Clearing a paper misfeed in the reverse automatic document feeder 8-27
Clearing a paper misfeed in the right-side door 8-21
Color setting 4-4
Components 3-1
Control panel 3-12, 7-2
Copier MF22 10-1

Copy paper 5-1
Copy paper sizes 11-1
Copy settings 4-23, 4-24
Custom paper size 4-14

D

Default settings 3-21
Deleting copy jobs 4-3
Density settings 4-31
Document transfer belt 7-2
Document types 6-2

E

Electrostatic charger 7-3
Envelopes 3-23

F

Feeding documents 3-37, 3-40, 6-1
Finisher FS-501 ..... 8-6, 8-30, 8-38, 10-6
Finisher FS-601 ..... 8-9, 8-34, 8-40, 10-5
Fusing unit 8-24

G

Glossy 4-34

H

Housing 7-1

I

Inspection mark 8-47
Installation site 2-6

J

Jammed staples 8-38, 8-40
Job separator JS-601 10-6

L

Loading 3-23, 3-28, 3-30, 3-32

M

Main unit 10-1
Malfunction 8-48, 9-4
Manual feeding 3-40
Manual zoom ratio 4-8
Media type selection dial 3-23
Messages 8-1, 8-50
Misfeeds 8-13, 8-15, 8-17, 8-18, 8-20, 8-21, 8-24, 8-27, 8-30, 8-34
Multiple bypass tray 3-32, 4-12, 4-16
Multi-sheet feeding 3-37

N

Non-standard paper size 4-14
Number of copies 4-1

O

Original direction 3-37, 3-40
Original glass 7-1
Original settings 4-18, 4-28
Original settings specifying 4-18
Output settings 4-6
Output settings specify 4-6
Overhead projector transparencies 3-23

P

Paper 5-1
Paper capacity 5-4
Paper drawer 8-18
Paper feed cabinet 3-30, 8-20
Paper feed cabinet PC-101 10-4
Paper feed cabinet PC-201 10-4
Paper feed cabinet PC-401 10-4
Paper misfeeds 8-13, 8-15, 8-17, 8-18, 8-20, 8-21, 8-24, 8-27, 8-30

Paper setting 4-9
Paper settings 4-9
Paper sizes 5-3, 11-1
Paper storage 5-6
Paper take-up roller 7-3
Paper types 5-1
Part names 3-4
Parts 8-49
Photo/Density settings 4-31
Power save mode 3-18
Power source 2-6
Print area 6-6
Print quality 9-1
Punch kit PK-4 8-45
Punch scraps 8-45

R

Relative luminosity 4-4
Replacing 8-1, 8-2, 8-6, 8-9, 8-48, 8-49
Replacing the staple cartridge for FS-501 8-6
Replacing the staple cartridge for FS-601 8-9
Replacing the toner cartridge 8-2
Replacing units 8-48
Reservation 4-16
Restarting copying 4-3
Reverse automatic document feeder 8-27
Reverse automatic document feeder DF-601 10-3
Right-side door 8-21

S

Screen pattern 4-34
Sleep mode 3-19
Small-sized documents 6-6
Space requirements 2-7
Specifications 10-1
Specify conditions 4-28
Staple cartridge 8-6, 8-9

Staples 8-38, 8-40
Stopping copying 4-3
Storage 5-6
Supplies 8-49

T

Take-up roller 7-3
Toner cartridge 8-1, 8-2
Touch panel 3-21
Troubleshooting 9-1
Turning off 3-20
Turning on 3-17

U

Units 8-48

W

When “The following units need to be replaced soon.” appears 8-48
When the machine is not operating correctly 9-4
When the message “Malfunction detected.” appears 8-48
When the message “Misfeed detected.” appears 8-13
When the message “Please replace XXXX.” appears 8-49
When the message “Remove punch scraps.” appears 8-45
When the message “Replace staple cartridge.” appears 8-6
When the message “Replace the toner cartridge” appears 8-1

Z

Zoom ratios 11-2
Zoom settings 4-8